New Orleans Medical
and
Surgical Journal

Vol. 88 NOVEMBER, 1935 No. 5

THE UNIVERSAL CHALLENGE
EWING FOX HOWARD ORATION*

G. S. BRYAN, M. D.
AMORY, MISS.

There was never a time when I felt more humble than at this moment. I have never undertaken a task when I was more conscious of my limitations. No one recognized and appreciated the splendid traits of character that distinguished him whose memory we seek to perpetuate, more than do I. And if I thought it wise and proper, I could spend all the time that has been allotted to me on this program pronouncing encomiums that would be both true and deserved. But they would be entirely futile; for no one who hears me speak this evening but knows E. F. Howard's life and work were an honor to the profession that he so richly adorned. But I do feel impelled to say, and will say, a few things out of the fullness of my own heart. It has been said that an honest man is the noblest work of God. If this be true, then indeed, Dr. Howard was a "nobleman"; for he was honest to the last degree. He was honest in his dealings with his fellow men, honest in his speech and honest in thought. He was true and loyal to his ideals, his inner and true self. It has been, truly, said that one who is true to himself can not, possibly, be false to any one. He had a most brilliant mind and was endowed with keen perception and quick understanding. His courage was dauntless, he might well have been spoken of as a modern "Richard the lion hearted". I knew and watched and loved him for thirty years. During these three decades, I was happy to be considered a fellow worker with him for the betterment of organized medicine. We did not, always, agree but we never quarreled; for I respected him and trust that I held and deserved his esteem and confidence. And now, dear friend, please to reach forth your spirit hands and receive a bouquet of sweet scented flowers from the hand of one who loved you in life, who mourned you in death, and one who will always revere your memory.

Now, my friends, the subject to which I invite your attention and thought tonight, I have designated "the universal challenge". In my thinking this is the most important subject that challenges medical thought today. It is important, first, because of its antiquity. It is perhaps, as old as the race. It has always been important because of its high mortality rate. Its importance has increased with the passing of time because its incidence has increased at an amazing rate while its mortality rate has decreased but little if any. I think it should be of supreme importance to the medical profession because of our boasted progress in all phases of medical science and thought; yet it seems to me that we have advanced, all too little, our knowledge and understanding of this great subject.

I am quite sure that each one of you, my hearers, must understand that I am referring to "cancer," or I might more properly say "the cancers," for I want you to include in your thinking every type of malignancy.

If there be need for excuse or apology for the selection of this subject, I will plead an intense personal interest in it. I have always been interested in it. My earliest environment

*Presented at the Sixty-Eighth Annual Session of the Mississippi State Medical Association, Biloxi, May 14, 1935.

was such that it could not have been otherwise. No sooner had my infant hands tired of grasping for the dust particles that were so beautifully tinted by the sun's rays as they floated in the air above me, than my curiosity and interest was drawn to a disfiguring patch or protecting shield that I discovered on the brow of a paternal uncle in whose home I spent the years of my early childhood. I saw this cancer, for such it was, widen and deepen as months passed by. I saw strength and vitality ebb, I saw the sparkle of a kindly eye grow dull as blindness came on. The memory of what I saw haunts me yet. And finally at the age of seven, I stood by a bedside and saw, for the first time, death write "finis" to a tragedy that has influenced me through all the years that have, since, come and gone. Again in my early manhood, soon after I had begun the practice of medicine, I saw a maternal aunt fade and wither and die from the ravages of cancer. Then, about fifteen years ago, I saw my only brother, the last member of my immediate family, succumb to this "chief of the captains of death". Then do you wonder that I have thought much about this horrible monster—this veritable vampire, that true to form, fans us to sleep while it sucks the life blood from the fairest, the best and the dearest of our race?

And now, before approaching this subject from any scientific angle, permit me to prefer a charge—an indictment if you please—against the medical profession as a whole. That charge is that we have been derelict to duty. And I will say that I believe this dereliction is so grave that it can only be described as criminal; for I believe that had we given this subject the thought and study that it so richly deserves, cancer would, long ago, have been under control as is small pox, typhoid and other diseases that have scourged the world in the past.

And now, let me say that I do not come before you claiming to know anything about cancer that all of you do not know or might not know. I have no new or original ideas to advance nor do I come exploiting any ideas that have been offered by others. I come as one who is desperately in earnest in his search for light and knowledge. I have read much, oh so much! I have thought, or tried to think, until my brain had lost power to think and concentrate, and yet I have found no light. Cancer still remains the same dark inscrutable mystery it has been through all the ages past.

In this presentation of the subject I do not expect to fathom this mystery, nor do I intend to, even try to do so. Rather is it my purpose to ask some questions that I trust may cause many of you to think and ponder as you have never done before. I shall refrain from quoting statistics, because statistics are frequently misleading and nearly always confusing. And I shall abstain from quoting authorities; for I suspect that within a decade most if not all current teaching will have been retracted or discredited. So if I should quote any opinions it will, most likely, be of some one who is dead. In my study of this subject, scores, yea hundreds, of questions have presented. But few of these have I been able to answer to my own satisfaction. When I was an undergraduate student, I accepted my teaching with loyalty to my teachers and text books. Very soon I found the job had been poorly done although it was "up to date" and all like that. Soon after graduation great public interest was aroused. The medical press, the lay magazines, the lecture platforms and pulpits united in an effort to make the public cancer-conscious. I said surely the work will soon be done. Surely with all these lights focused on one subject, all ignorance, uncertainty and mystery will vanish. Yet notwithstanding that many thousands of speeches have been made and train loads of printed matter, lay and professional, have been distributed and read, we know little more than formerly. Millions of dollars have been spent in waging a campaign for cancer control. Early diagnosis and early treatment have been stressed, and rightly so, but what are the results? The incidence is greatly increased and the mortality rate is practically unchanged. It seems to me that those of us who have thought on this subject have devoted our time and talent to the devising of some special technic in surgical or radiological approach and attack. This is good and well, and I congratu-

late our friends on their ingenuity and skill. But what have we learned about cancer? More than twenty years ago I asked myself and others what is cancer? The best definition I have found in any dictionary is "any malignant neoplasm". Bah! A long time ago I heard one of the nation's leading pathologists say, "cancer is a bolshevik uprising of normal cells". Good, but why this uprising? May it not be that cancer is some unknown factor that causes normal cells to revolt against biologic laws and congregate in mutinous uproar? Recently I had a personal communication from a pathologist whose reputation as such is nation wide and he stated in this communication that "cancer cells are about the same as other cells in size, shape and structure but they differ from them, somewhat, in chemistry". He further stated that they are "unlike other cells in that they are disobedient to biologic laws—therefore they are anarchistic and antisocial". Again I say good, but I still am not satisfied. Will not some one tell me more?

The overshadowing question in the study of this problem, it appears to me, is its etiology. Once the true nature of cancer and its etiology, have been determined, all the difficulties will disappear. Both prevention and cure will, then, be easy and certain. I am wondering if it is possible that cancer is one of the so-called "deficiency" diseases? May its incidence not be due to the absence, rather than presence of some active principle? Pellagra, beri beri, and other diseases long held as mysterious conditions, are no longer so considered. I am wondering if a closer study and clearer understanding of the part played by the vitamins, amino-acids and endocrine secretions might not help us in meeting the great challenge that we must face. I have corresponded extensively, during recent years with many different men who are regarded as leaders in medical thought and teaching. These men are scattered over a great part of the United States. I have felt highly honord and have been greatly surprised by the fact that not a single one of these busy and scholarly men has neglected or failed to reply to all my letters. In all my letters I have asked many questions. To some of these questions there seemed to be agreement in reply, but to the question of etiology, there has been great variance of opinion. Many, most of them, answered frankly. "I do not know". One man who is very much in the nation's eye, who is noted as an internist, says he is convinced that "diet" plays the major role in its causation. A great surgeon who is recently dead, to my surprise, said that he was convinced that protein foods were much concerned in the matter of cancer incidence. One surgeon, who has long been a teacher of medicine and surgery in the East, said "I have been convinced, for forty years, that the trouble is due to an infection due to an unknown and unrecognized microscopic organism". And he intimates that he suspects that the different types of cancer may be caused by different types of organisms. Others, while considering this line of reasoning, reject it because there is no evidence of community spread of the disease. Some there are who believe that disturbance of the acid base with a shift of pH to the left may be a factor of much importance in its incidence. These mention the fact that cancer rarely occurs among the undernourished and starving. The dehydration of tissues among such people being considered as a possible protection against it.

Uncivilized races seem to have, at least, a partial immunity to cancer. This fact is cited by those who believe that diet and lack of sufficient food for protracted periods of time, may account for the low incidence of the disease among this class of individuals. While cancer does occur in very early life, why is it that beginning with the fourth decade of life its incidence increases? I am wondering if endocrine dysfunction is not more likely to occur then than in in earlier life? Again I wonder if the pH is not more likely to shift to the left after middle life? Prolonged and constant irritation is thought by many to be the chief cause of cancer. Some go so far as to say that some biological force acting as a constitutional irritant plus local irritation accounts for all cancers. I wonder if this is near the truth? Heredity has always held a place in both medical and lay thinking. We all know of the work

that has been done with mice. We know, too, of the transplantation of cancer cells. I am happy that these studies have been carried on, but can we really claim that they have carried us very far toward the solution of this greatest of medical problems? We stumble and stagger in our blindness and ignorance, but my friends, do we not face, at every turn, one great question? Namely: Is cancer a constitutional or local disease or condition? Is it *first* constitutional in nature, followed by local manifestations, or is it primarily, local with resultant constitutional changes? When this question has been answered with conclusive proof, I think we shall have made a long stride in the solution of all other phases of the problem. More than half a century ago Padget taught that it was, first and essentially constitutional followed by local manifestations. His teaching and writings are still held by some to be entitled to be regarded as classic.

I wonder if it would not be well for us to devote more thought and study along such fundamental lines and less to perfecting and acquiring surgical and radiological technic? I, probably, may have more to say later in this discussion, along this line. Another question, I hold to be of great fundamental importance is: Can cancer be cured? As an undergraduate student of medicine, I was taught this was possible but not probable. At that time diagnostic precision had not been worked out as it has since been. The question of how we might know a cure had been attained arose naturally. We were told that if a patient thought to have cancer got well and remained free from further cancer manifestation for three years we might know that the case had been cured or that we had made a mistake in diagnosis. This was not very comforting to either doctor or patient. Soon I learned that we must wait five years, then we were told that seven years must elapse before we could assure the patient she was free from cancer. But now there are some who say we may *never* know for a certainty. Perhaps it is well that doctors do not work on a "no cure no pay" plan, else we could never ask or expect pay for cancer cures. But most doctors seem to accept a five year period as long enough to wait for glory (they want their pay sooner and I think they should have it sooner than they usually get it). But another question crowds into the picture and this question is very confusing to me. It is this: Is there such a thing as spontaneous cure for cancer? By this I mean do cancer cases ever get well without treatment? Is "vis medicatrix naturae" ever sufficient to bring about a cure? If you answer in the affirmative, and there would seem to be no reason to question that this is true, then I ask you in all seriousness how can a doctor prove that the cures for which he takes credit were not *spontaneous* rather than due to his therapeutic efforts, whatever they may have been?

There are some who think and speak of recurring cancer. I wonder if these do not regard cancer as purely local in character? And I wonder if they do not consider every cancer as cured when it shall have been completely removed, by whatsoever method that may be adopted? I can readily understand that if cancer is due to some infecting organism that expends its virulence locally, that removal of the focal manifestation would be equivalent to a cure and, unless permanent immunity should be established, reinfection might take place. But under this reasoning, it would not be a recurrence, but reinfection. But on the other hand if it should be possible or true that cancer is primarily a constitutional disease, whether due to endocrine dysfunction or some other biochemical upset, it appears to me that it is improper to speak, either, of reinfection, recurrence or metastasis. As an illustration let us consider syphilis,—first a focal infection followed by general systemic infection, followed, possibly, by a period of quiescence. Then after years, maybe, local manifestations. Does anybody think that removal of gummata could possibly cure syphilis? Again let us consider leprosy. Does anybody teach that leprosy can be cured by treating the local manifestations of the condition?

Having confined my remarks, almost entirely, to the nature and etiology of cancer, with a desire not to tire you, it is fitting, now to discuss matters related to its control. Control of

cancer certainly includes prevention and correct and early diagnosis, and in addition to these, prompt and proper treatment. Or, more simply stated, we might say cancer control includes prevention and cure. And I am wondering if most of our efforts along these lines are not based on empiricism? Please do not understand me as wholly condemning empiricism, for we must know that much of our best work depends upon empiricism, or did, for a time, so depend. As an instance I mention the treatment for malaria. But empiricism had to be displaced by scientific knowledge before real progress towards malarial control was made. So I want to say, with emphasis, that I do not believe we can hope to limit or lessen the incidence of cancer until we know about the nature and etiology of the disease. Nor do I think we can hope to do much in the way of curing cancer until we know more about it. Please do not think that I am inclined to minimize or discredit the work that is now being done along accepted lines of treatment. I know of nothing superior or equal to surgery and radiology in treatment of cancer. In fact, I feel that our surgeons and radiologists are to be commended and praised for their work. Their technic is, I think, well nigh perfect. But in spite of all this, are we getting very far in our undertaking to control cancer?

At the April meeting of a group of the C. A. S. members in Cleveland, one of the directors of this important organization boasted that there were twenty-six thousand cures of cancer to the credit of surgery and radiology. This is good—very good, *if true;* but are these people cured? And if cured how may we know that they were not spontaneous cures? Again if only twenty-six thousand cures of malaria or diphtheria were claimed and no proven preventions, would our boasting not be considered vain? Twenty-six thousand out of all the millions of cases treated! What a pitifully poor showing that is! But if there were no reason to question the number and genuineness of these cures, I would be the last to discourage. But even then, I would plead for more knowledge. I would ask to be enligtened as to the how and why. How can it be that two procedures so entirely different can produce the same beneficent result? Specific diseases, if cured, must, in my thinking, require specific treatment. The only way around this hypothesis, it seems to me, is to assume that the different therapeutic procedures stimulate or bring about certain biochemical processes or reactions. So I am lead to wonder if the traumatism resulting from the surgery or the repeated applications of the trauma of irradiation may not be an important factor in these treatments? And just here those who think that a shift of pH has much to do with the prevention, cause and cure of cancer, find a premise for their reasoning. Since it appears to be true that individuals with a pH leaning to the alkaline side are prone to develop cancer and that this alkalinity increases as the case progresses, may this fact not be a guide to the prognosis in each individual case? It seems to be a fact that most stomach cancers secrete little or no hydrochloric acid. I wonder if this is *propter* or *post hoc?* I wonder what conclusions should be drawn from the fact that alkalinity is greater in cases with internal cancer than with skin cancer? If the normal reaction of leukocytes is acid, I wonder if the rush of these cells to the point where surgery or irradiation is done may not have a controlling influence on the mitosis that causes the cancer growth? Again I wonder if the systemic shock that attends major surgery and general anesthesia with the inevitable acidosis that goes with them, may not be responsible for the recessions and apparent cures that we see? If not, on what basis or theory can the cures that follow exploratory operations on cases that are declared to be inoperable after cutting down on them be explained? These cases are occurring all the time everywhere. They are opened up and closed again and the patient told that death is inevitable. But they simply refuse to die, they live on to plague the surgeon on every turn he takes. You say mistaken diagnosis, but I say not. These cases have been seen by our best men, biopsies done by our best pathologists. Correct diagnosis, but wrong prognosis, because we do not understand cancer. Can this be true?

What always happens when deep anesthesia

is produced by chloroform or ether? Do we not expect acidosis to follow? May this shift of pH not be important in the treatment of our cancer cases? If so, would not repeated anesthesia be logical?

SUMMARY

What is cancer? Is it, primarily, a local or is it a constitutional disease? Is it infectious in nature, that is, is it produced by means of some microscopic organism that may gain entrance into our bodies in some mysterious way? Is it a deficiency disease, caused by lack of some food element or some vitaminic influence that should come to us from air or sunshine? Is it due to some poison which enters the body from some extraneous source? Is it in any way due to or influenced by hereditary conditions? Is it caused or is its course influenced by endocrine dysfunction? Why is cancer rare in the early decades and more common in later life? Is cancer curable and if so, how may we be sure that it has been cured? Do cancer cases ever get well without any treatment whatsoever? If so, how may we know that all cures are not spontaneous rather than dependent upon our therapeutic efforts? May not all apparent cures be recessions, rather than cures? Are some people born immune to cancer or do some lose their immunity? Finally, is cancer due to the acquisition of some element or principle or is it due to the loss of some element or principle of defense?

In conclusion I will say that if I shall have increased your interest in cancer to the point where each of you will give the subject sober, serious, honest, earnest, thought, I shall be most happy; for I believe if every member of this association would devote thirty minutes per day to thought and study of the subject for one year, the challenge will have been met and cancer control will be an accomplished fact.

My friends, of course, I am pleased to look into your faces this evening, and I feel highly honored in that I have been invited, by my dear friend, your honored president, to appear before you with him on this occasion. I am always happy to meet and mingle with my friends, anywhere. But to meet them in beautiful, historic, intriguing old Biloxi, is great, indeed. The very name, Biloxi, seems filled with dulcet, soothing music. And *friends!* What word in any language means so much to one who has known and loved friends who were true and loyal? Friends, Biloxi! I salute you.

Four times have I come to this beautiful coast land to foregather with you, my friends, and on each occasion you have thrust some undeserved honor upon me. Be assured that I appreciate these honors and love you all the more because of them.

Some times I have felt that when evening comes, I should like to slip away from the environs of a busy and toilsome life—come to this alluring coast and sit and dream and slumber, slumber and dream, until that deep sleep that must, some time, come to us all, shall shut out the memories of all the trials and vicissitudes, as well as all the joy and happiness that have come my way. One day, while standing with a materialistic minded friend, gazing out over the waters of this beautiful bay, I said to him, "I am always transformed when I stand by the side of the sea. I can not understand the emotions that fill me at such times. I think that my ancestors, of whom I have no records, must have been sea-going and sea-loving folk. Much joy and much sorrow must have come into their lives because of the sea." To this he replied, "Do you not, rather, think it is because your ancestors, in the dim, prehistoric times many millions of years ago, did not live in a house by the side of the sea but were denizens of the deep?" I did not make reply to his question, but my mind reverted to the love ditty, in which this line, "when I was a tadpole and you were a fish", appears.

POPULAR BELIEFS AND SUPERSTITIONS ABOUT EYES*

CHAS. A. BAHN, M. D.†

A review of superstitions and popular beliefs shows that many great medical discoveries and some of our modern medical methods have been known in folklore for

*Read before the Louisiana State Medical Society.

†From the Dept. of Ophthalmology Post Graduate Dept., L. S. U. Medical Center.

hundreds, and even thousands, of years. Some apparently foolish customs contain a grain of important truth, based on keen observation of cause and effect, which is responsible for their long existence.

Would you prescribe the use of red flannel to prevent pitting in smallpox? Probably not. Yet you would quite possibly use infrared light, a more efficient application of the same principle of heat light. Often employed in crude and indirect ways, an important basic truth is maintained by many generations in different forms. The form which we use today is, on first thought, entirely new. In reality, it is often but an old idea dressed in new clothes. Some of our popular customs will probably be looked upon by future generations very much as we look upon those of a hundred years ago. The more efficient application of fundamental truth contained in popular belief, which some observer was keen enough to see, intelligent enough to investigate, and persistent enough to re-apply in a better way, has given us many of the world's greatest medical contributions. For example, the discovery of vaccination for smallpox by Jenner was only a more practical application of the then-popular belief that those who milked cows had smallpox less often than others. Some of the greatest medical advances of the future will likewise be based on important fundamentals which have been hidden away in popular customs for ages. Popular medical beliefs have existed as long as history, and will probably so continue. They have sometimes accomplished good, sometimes harm, and usually neither. They often represented the best solution of health problems possible at the time in which they arose.

A great many people look upon these popular medical beliefs, impressed upon them since childhood, as short cuts to health, and are not sure of their incorrectness or harmfulness. It is even believed that we physicians are somewhat prejudiced against ideas which do not originate with us, and which we do not fully understand—that we are unwilling to see real merit in popular customs because of ethical or other prejudices. The public is becoming more health conscious, and our leadership in health guidance with all that it includes, will not be strengthened by our ridicule of their treatment methods, especially where motives are easily misunderstood.

Quite a few popular beliefs, superstitions, and religious customs originated as hygenic measures, enforced by religious leadership. Looking upon all religions as schools of health and happiness, physical, mental and moral, the preservation of physical health upon which mental and moral health obviously depend, is of paramount importance. The Jewish perscription of pork was probably necessitated by the trichinae and other parasites which infested hogs, and which affected the health of those who ate pork. Though the cause has long ceased to exist, the custom still prevails. Likewise, the Jewish rite of circumcision materially reduced the frequency and severity of affections to which tropical peoples are especially liable. The dietary and other restrictions of the Lenten season better fit the average person for the approaching hot summer. The season of Christmas, which is devoted to the encouragement of good will to mankind, as well as the observance of the Sabbath, which marks a rest period in the week, are fundamental in all religions because they meet basic human needs.

Peculiar coincidences are encountered in studying health superstitions and beliefs, of which the blindness of Tobit, and its cure, as told in the Old Testament, is an interesting example. Tobit, the father of Tobias, while reclining in the courtyard of his home was struck in the eye by the excrement of a bird flying overhead. This resulted in blindness. The diagnosis of today would probably be a corneal ulcer of pneumococcal origin. The recovery of his sight, as quoted from the Book of Tobit, is even more interesting:

Chapter 6, Verse 2: "When Tobias went down to wash himself in the Tigris, a fish

leaped out of the river, and would have devoured him. The Angel of the Lord told him to take out the gall, and to put it up in safety." Verse 6: "Tobias asked the Angel what was the use of the gall." Verse 8: " 'As for the gall,' said the Angel, 'it is to anoint a man who has whiten in his eyes, and he shall be healed.' " Chapter II, Verse II: Tobias took hold of his father and stroke of the gall in his eyes, saying, 'Be of good hope, Father.' " Verse 12: "And when his eyes began to smart, he rubbed them." Verse 13: "And the whiten fell away from the corners of his eyes, and when he saw his son, he fell on his neck."

The coincidence lies in the fact that bile salts in solution are among the very few drugs which dissolve cultures of pneumococci, and that they are being used experimentally at the present time in the treatment of pneumococcal ulcers of the cornea.

Popular superstitions and beliefs usually contain both a mental and physical factor. The mental part is intended to increase the individual's confidence in recovery and augment the urge to get well. Confidence reduces the mental shocks of life and helps overcome the fear of pain, disability, death, which play an important part in mental medicine. The state of panicky fear is no more conducive to health, happiness, or the recovery from disease today, than it was five thousand years ago. It is not surprising that the observing leaders of that time who evidently understood this psychological law used the best means at their command to overcome fear.

Health superstitions are based essentially on the concept that good health in one form or another represented the blessing, or goodwill of the Diety. Disease, or ill-health, on the contrary, represented the anger of the Deity because of violation of his dictates. If evil was personified, the machinations of the devil or evil spirits enforced the punishment of disobedience. Our modern conception of the same basic idea is that violation of fundamental hygienic laws as they apply to the individual will cause sickness in one form or another. In one case, sickness comes from the disobedience of religious dictates, in the other, sickness results from the voluntary disobedience of the laws of hygiene formulated through experience to help human beings invest their health capital most wisely.

The physical phase of health superstition takes advantages of the fact that action of some sort is usually necessary for accomplishment. Mere thought is not sufficient. In some instances, popular beliefs were originally based on actual observation which correctly, or incorrectly, correlated cause and effect. In other cases, the performance of some unusual act was often used in one way or another to increase the individual's confidence in recovery, and to augment the urge to get well. Ceremonies in which many participated were sometimes used. The Chinese prayer wheel, which enables the individual to crystallize his wants, represents the last word for those in whom this mental attitude can thus be aroused. Consciously, or subconsciously, the mind is stimulated effectively to attain its wants.

It is interesting to analyze several popular beliefs and superstitions about eyes. In some of these apparently ridiculous remedies are the same fundamentals which modern medicine now employs in a more effective manner.

TO CURE STYES

Rub Them with a Gold Wedding Ring. Stye are small abcesses near the roots of the lashes. Pain is caused by pressure on the sensory nerves, the relief of which is partially obtained by reducing the skin tension, usually with heat, massage, or the discharge of the enclosed pus. Rubbing the stye with a gold wedding ring supplies the warmth and massage; the ring has the advantage of being smooth and, probably, as clean as anything available to the sufferer.

Rub Them with Spittle. Warmth and massage, especially with a viscid fluid, tend

to reduce the skin tension and favor discharging of its contents. Unfortunately, the cardinal virtue of cleanliness is sadly lacking in this remedy.

Take a Pebble from a Running Stream and, after Rubbing the Stye with It, Replace the Pebble. Here, the massage with a smooth, clean object is used, and even a faint suspicion of surgical cleanliness is suggested in the command to throw the pebble away after using it.

Wear a Nutmeg Around the Neck. The only merit which is apparent here is the stimulation of confidence in recovery. In a similar superstition of wearing asafoetida about the neck to prevent sore throat and diphtheria, there was, in addition to the possible mental benefit, the slight counter-irritation of the asafoetida which, possibly by design, out-stunk the sore throat.

Go to a Crossroads and Turn Around Three Times. Here, the performance of an unusual act in an unusual way illustrates how the urge to get well was augmented without apparent connection between cause and effect.

Rub a Black Cat's Tail over the Eye Nine Times. The outstanding feature in the performance of this unusual act is the surprise to both the cat and the patient. In the scuffle which might easily ensue, through the misinterpretations of motives, especially by the cat, anything might happen to the stye. The tameness of the cat, also, would seem a very important factor in the outcome of the treatment.

CHILDREN OUTGROW CROSSED EYES

Crossed eyes practically always tend to become worse unless straightened by glasses, training or operation. The fundamental causes which forced one eye to cross the first time usually continue to act. The probability of both eyes seeing perfectly and pointing correctly, unless properly treated, becomes more improbable with each succeeding month. The longer one eye or the other squints, the more difficult technically to cure squint, after the age of six. The principle causes of crossed eyes in children are: the defective pulling power of one of more muscles that move the eyes and keep them straight; defective focusing power of the eyes usually worse in one eye; and defective development of those parts of the brain in which the images of both eyes are blended into a single mental picture.

MEASLES AND OTHER CHILDHOOD DISEASES CAUSE CROSSED EYES

Children frequently develop crossed eyes during the ordinary diseases of youth, or very snortly thereafter. Any slight illness will apparently cause one eye to cross if a child has defective pulling power of the ocular muscles, defective focusing, especially of one eye, or the defective brain development mentioned above. These have probably existed separately, or combined, since birth.

In reality, the eyes, which previously tended to cross, needed only a slightly lowered vitality to produce actual crossing. Having done no accurate, or sustained seeing in life, such children have been able to keep their eyes straight, with relatively little increased fatigue. As soon as they begin to use vision more for close seeing or vitality is lowered by any childhood disease, such as measles, they can no longer bear the fatigue of seeing together with both eyes, and pointing correctly at the same time. The better seeing eye is then usually employed for more accurate vision, and the other eye points in the direction where ocular fatigue is least.

BORIC SOLUTIONS CURE EYE DISEASES

Boric solutions, as used in the eyes, probably have never killed a germ or cured an infection. At best, their bacteriacidal power is very limited, especially when diluted with the tears. If you doubt this assertion, place a solution of borax or boracic acid in the air a few weeks, and watch it become cloudy from a fungus growth. The popular faith in the curative virtues of boric solutions depends largely on the fact that plain water

in the eye burns, but boric solutions do not. Being isotonic with the tears and non-irritating, they produce a relative sense of comfort as compared with water, a fact upon which was founded for several generations the inference of healing and antiseptic qualities. Aside from the removal of mucus, boric solutions have no place in the cure of eye diseases, except in augmenting the urge for recovery. The same applies to normal salt solution, and other chemicals, which are used to make up the large number of proprietary eye drops and washes.

"SORE EYE" REMEDIES

Babies' Sore Eyes Are Prevented And Cured by Lemon Juice. The use of freshly squeezed lemon juice to prevent and cure sore eyes in babyhood is still highly regarded in some sections of the Spanish countries. Although citric acid solutions have no specific healing qualities in eye diseases as grannies and old wives believe, their cauterizing action would aid in destroying conjunctival bacteria. Crede's prophylactic method in ophthalmia neonatorum with silver nitrate is simply a more efficient application of the same idea and was probably based on the previous use of cauterizing agents such as lemon juice.

Urine Cures Sore Eyes. No popular treatment in the world's history has probably done more harm than the use of urine in the eye. Thousands owed their blindess to this home remedy which infected them with gonorrhea and other diseases. Most of them were infants. Unfortunately, the originators of this treatment did not understand that some of the many serious eye diseases are transmitted by contact with infective matter, especially urine. Without this knowledge, it is easy to understand why fresh urine was used in the eye. It is warm, and does not burn as water. Only an understanding of personal hygiene can eliminate treatment methods like this which, unfortunately, still exist.

Warm Breast Milk Cures Sore Eyes. No harm, except for the delay in obtaining more effective eye treatment in gonorrheal infections, probably resulted from the use of fresh breast milk in the eyes. It was warm, non-irritating, oily, and above all, reasonably clean. The use of a secretion, or excretion, of one sort or another, to cure disease was frequent in bygone days, and was probably the fore-runner of endocrine therapy.

CHEWING GUM WEAKENS THE EYES

Since time immemorial, human beings have chewed gums of many kinds, for flavor, appetite, and relaxation, if not for beauty. Especially in the novice, prolonged chewing does tire the face muscles, the weakest of which are those of the eyelids. The arduous use of gum may produce a slight sense of fatigue or weakness of the eyelids. It is also said that when manufactured chewing gum first came into vogue, parents fostered this popular belief to discourage its use among children.

NIGHT BLINDNESS IS CAUSED BY SLEEPING IN THE MOONLIGHT

Not many years ago, night blindness was thought to just happen. Now, we know that it is due to poor retinal light adaptation and has many causes, ranging from food deficiencies to defective ancestors. Other causes probably remain to be discovered. Sleeping in the moonlight is not yet one of them although the restlessness associated with sleeping in excessive light of any sort could aggravate the amount of night blindness previously existing in a hypersensitive person.

GROWING A MUSTACHE CURES WEAK EYES

During adolescence skin eruptions, including styes and other inflammation, are more frequent. The secondary sex characteristics, such as hair on the face, are also developing and the endocrine mechanism is changing. With the development of the beard or mustache, the skin eruptions, especially those involving the lashes, usually diminish, hence the probable association.

EYE TEETH CAUSE EYE DISEASES

Long before focal infections were understood the upper second incisor tooth was

called the eye tooth because it was thought to point most directly toward the eyeball.

The first molar is thought by some to be the most frequent offender in focalizing infections that spread to the eye and elsewhere in the body.

BEWARE OF THE EVIL EYE

Frequent mention is made in ancient and modern history, especially among emotional people, of death and disease caused by the glance or look of people who exerted, through their eyes, an evil influence on others. In Africa, over a hundred persons were supposed to have been killed within a few years by the spell of such a person. The real story will probably never be known. Those who have much energy and self-control, which help them to look others directly in the eye for an unusually long time, tend to frighten, mystify, or dominate other personalities less gifted. It is possible that the socalled "evil eye" was also applied to those with ocular disfigurements of many kinds.

GLASSES WEAKEN THE EYES

Correcting lenses place the focusing power, which optically should be inside, in front of the eyes. If this focusing power is necessary to increase vision, or decrease ocular fatigue and discomfort, proper correcting lenses are the only intelligent remedy. Glasses don't weaken the eyes. Quite the contrary, most persons who wear glasses do not require them permanently. When ocular fatigue is reduced sufficiently by the use of correcting lenses, or the aggravating irritability of the eyes, often associated with dysfunction elsewhere in the body, is lessened, the glasses can often be dispensed with entirely, or worn only during prolonged eye use.

After the age of 40, the automatic attachment of the ocular camera usually progressively weakens and glasses become necessary for close eye use. These, technically, have no connection with the correcting lenses which may be needed for distant sight. Different strength lenses for far and near use frequently become a necessity which is met by two separate pair of glasses, double vision lenses, popularly called bifocals. Increasingly stronger glasses are usually required for close eye use after 40, not because glasses weaken the eyes, but because the weakening focusing attachment in the eye requires a correspondingly stronger lens before the eye for clearest sight.

The popular prejudice against glasses, which is fortunately subsiding, is largely due to the inference of disability which they convey, the physical discomfort of wearing glasses, and the belief that many glasses have been uselessly prescribed. A better understanding of the reasons why glasses have been considered useless by the wearer is especially interesting at this time.

In all fields of human endeavor, there are the incompetent and dishonest. Ours is not an exception. Fortunately, in opthalmology, they are few, but unfortunately, they cannot quickly be eliminated from our complex social system. Only a better understanding of medical values and medical service can reduce the number of patients who are unfairly taken advantage of, by those who claim competency and honesty in the examination of eyes for glasses.

One or more of the following fundamentals are involved in the large majority of apparently unnecessary, and unsatisfactory glasses. The solution of this problem to the public's satisfaction, is somewhat of a challenge to medical leadership in sight conservation, and all that it includes.

Incompetent testing, poor frame fitting, incorrect adaptation of lenses to individual needs, practical reductions of the varied factors which have caused the patient's eye symptoms, and a more definite understanding between the eye physician and the patient, especially concerning the practical value of the glasses which are being prescribed.

These problems are especially important in prescribing necessary and satisfactory glasses for the large group of border-line patients. The need and benefit of correcting lenses to them often depends not only on accurate test-

ing of the eyes, often possible only after dilating drops, but also on a broad understanding of the individual's eye use, and especially the varied causes which have produced the ocular symptoms. Some patients unfortunately seem to believe that all their ills will be cured by the purchase of a pair of glasses, which can be worn in a coat pocket, a ladies' purse, or in a desk drawer.

DILATING DROPS

In the treatment of some eye diseases, like iritis, dilating drops are necessary to prevent blindness; in others, like glaucoma, their use may do great harm. Those who are not legally permitted to employ dilating drops have publicized their abuse, apparently to mislead the public and to create a false prejudice for personal gain. To determine the actual necessity for wearing correcting glasses, their proper strength, and everything else necessary to the correction of eye symptoms, dilating drops are often essential, sometimes advisable, and, occasionally, harmful. Only an eye physician can intelligently decide on the advisability of their use.

In approximately one of every three persons who have eye symptoms, most efficient lens can be determined only after the use of dilating drops, which temporarily eliminate the variable automatic attachment of the eye. This variable automatic attachment causes the chronic strained effort necessary for the most distinct sight, and must be eliminated with dilating drops to properly test the eyes for glasses. As the clearest sight is obtained by the smallest possible retinal image and the smallest retinal image is often obtained by a chronic, strained, muscular effort, which aggravates the eye fatigue, even the most intelligent patient can not select the necessary one basic lens from even a small number of possibilities, until the variable automatic focusing mechanism can be temporarily eliminated. It prevents the accurate determination of the focusing power which the eye without straining effort needs to see most distinctly. This can be accomplished only with dilating drops.

Unfortunately, medical science has not devised an efficient test that will enable even the eye physician to determine positively the necessity of dilating drops for efficient glasses in each individual patient. In children, especially those with a tendency to crossed eyes, their use is imperative; in young adult life, their use is usually necessary; and after forty-five, they are usually not needed to obtain proper glasses. To this general statement there are obviously many exceptions.

We know that in one patient of every three it is impossible to prescribe efficient glasses without the use of dilating drops, and we do know when they are harmful. If their intelligent use can do no harm, and only good through making possible the prescribing of more efficient lenses and quicker recovery, there is but one intelligent answer: dilating drops when advisable or necessary.

Without dilating drops, especially in younger patients, it is usually impossible to determine the most efficient lens by a single test, because it is different with each test. A large number of tests are necessary, therefore, to determine even an approximate one best vision lens, which is accompanied by a variable amount of strain, the very thing that interferes with the determination of the most efficient correcting lens or glasses.

With dilating drops, any number of subjective and objective tests can be made, practically always with the same result, the basic one best vision lens which represents the eyes focusing defect without strain or excessive fatigue.

By enforcing ocular rest for several days, dilating drops often hasten recovery, and reduce the temporary discomfort associated with new glasses. They are sometimes necessary to examine properly the back of the eye. The information needed to diagnose correctly and properly treat the many diseases of the eye and those associated with every part of the body, can be obtained only after the use of dilating drops. Within a few minutes they can usually be completely counteracted. Properly used, efficient glasses are often impossible without the drops; improperly used, they may do harm.

SUPERSTITIONS AND SOAP

The keen observation of cause and effect,

which frequently originated popular medical beliefs and superstitions, and the skillful methods of enforcement based upon a firm psychological basis, actually accomplished but little because of one thing, the lack of cleanliness. At various times during the past several thousand years the idea of disease transmission by contact with infected matter seemed to be just around the corner. In some respects, it still is. Cleanliness, seen today, depends heavily upon modern plumbing installation.

Among the ancient peoples, the cleanliness of the Romans was proverbial, a fact which probably affected the rise and the fall of the Roman Empire. The remainder of the ancient world was not particularly interested in physical cleanliness. During the middle ages, personal cleanliness was apparently a lost art, as illustrated by the astounding fact that Queen Elizabeth took a bath about once a month, whether she needed it or not.

Only in the past 75 years have the details of disease prevention by physical cleanliness, both personal and in the surroundings, been even slightly understood. In the past, mental and moral cleanliness received a great deal of attention in popular beliefs and superstitions. Physical cleanliness was usually sadly neglected.

Soap and superstitions don't go together. The people with the most superstitions are usually those who use soap least. The same emotionalism which has accomplished so much in the world of art, easily lends itself to accepting opinions about the unknown without question, and is often not accompanied by a correspondingly strong urge for physical cleanliness, including the use of soap.

YESTERDAY, TODAY AND TOMORROW

Although we are living in a world where science has apparently become master, but little has been accomplished practically in defeating two of its greatest enemies. These are human gullability and audacity, which have both played such a prominent part in the healing art. When searching for health, the urge to rely on the intangible is almost fundamental. It has been used constructively and destructively since time immemorial by those who professed to cure disease. The intelligent layman of today does not wear a nutmeg suspended around the neck to cure styes, but the firms who sell electric belts, radium spectacles, eye exercisers, vitaminized eye salves, and falsely represented eye washes still do a thriving business even in times of depression. New methods of marketing the more passive confidence in recovery and the more active urge to get well are devised by each generation and usually discarded by the next, if not before. For us, the methods now in vogue are apparently the best.

Through history the confidence in recovery and the urge to get well have been linked with other fundamentals of health and happiness, with embryo medical discoveries of varying importance and usually with crude or clever foolishness which obscured the underlying principle of suggestion from the buyers' eyes.

In the future our uses and abuses of these fundamentals as well as many of our highly prized medical ideas and methods will be looked on with the same tolerant smile with which we regard those of a century ago.

It seems a pity that we are not able to harness more constructively the emotional forces of life and especially the confidence in recovery and the urge to get well. Even now they are generally used with but little intelligence and less practicality.

In closing this interesting chapter of ophthalmology a mention of the benefits which the writer has acquired through its study may help and interest other physicians. Relatively little has been written in this field of medicine.

If you want to be disillusioned about the real age of many ideas and methods that are considered ultra modern, interest yourself impersonally in what the world has been doing and thinking during the past several thousand years especially in the healing art. If you want a broader and less prejudiced evaluation of medical ideas not only from the physician's point of view but also from the patient's, an analysis of the underlying factors that have produced and perpetuated some popular medical customs and

even superstitions for ages will possibly help you as it has helped me. A pleasant diversion is the search for the hidden grain of truth contained in popular ideas from which will probably evolve important medical advances. Perhaps you can find one?

*The writer is indebted to Miss Marie Louise Marshall of New Orleans and Dr. Joseph L. Miller of Thomas, West Virginia, for assistance in preparing this article.

INOCULATION AND SANITATION IN CONTROL OF TYPHOID FEVER*

D. V. GALLOWAY, M. D.
MERIDIAN, MISS.

As early as 1886, Frankel and Simmonds found that several small nonlethal doses of typhoid bacilli would protect rabbits against subsequent fatal doses. In the same year, Beumer and Peoper immunized mice with potato cultures of typhoid bacilli, and by using small but increasing doses they were able to give definite protection subsequently against what ordinarily would have been fatal doses. They suggested the use of sterilized or killed cultures to be used for the immunization of men, but made no investigations or experiments themselves.

All of the earlier work on animals was incomplete and unsafe as a guide in the immunization of man, as at that time there was no way of detecting changes in the blood serum after inoculation and, consequently, no way of knowing that protection had been conferred.

The first actual immunization of men for the purpose of protecting them against typhoid was made by Pfeiffer and Kolle in 1896. They immunized two men and investigated the specific changes in the blood serum thoroughly and exhaustively. They showed that not only were agglutinins produced, but what is more important, the bacteriolytic power of the blood was also raised in the same way as during an attack of typhoid.

* Read before the Section on Hygiene and Public Health at the Sixty-eighth Annual Session of the Mississippi State Medical Association, Biloxi, May 15, 1935.

In 1898, Wright introduced typhoid prophylactic inoculation into the British Army in India, with results which were on the whole very good and encouraging.

During the Boer War, Wright recommended that the troops be inoculated. Four hundred thousand doses were furnished, but it is not known how many received the vaccine. Statistical reports were poor, the opinions of organization surgeons differed, and although Wright was convinced from the data he had collected that both morbidity and mortality were reduced, the procedure was not popular.

Early in the experimental work it was found that the age of the vaccine had considerable effect upon its immunizing properties. This no doubt accounted for some of the failures during the Boer War.

Even in the early days there was some controversy as to whether or not a virulent or nonvirulent strain should be used.

In 1908, Captain F. F. Russell, Medical Corps, U. S. Army, was sent to Europe to make a study of the methods of inoculation for typhoid fever in use in England and Germany. Upon his return a board of officers was organized to investigate the advisability of immunizing our own Army.

The board was convinced that vaccination was both useful and harmless and recommended its introduction into the Army as a voluntary measure. On June 14, 1910, 92 men of Company A, First Battalion, Engineers, were vaccinated.

Hawley[1], after an exhaustive study of the effects of typhoid fever vaccine, stated in 1934 that the Rawlings strain might not be the best typhoid vaccine strain; but it was his belief that the Army Medical School sub-strain is no worse today than it ever was. Nor has it been proved that the present state of this substrain is not the optimum for the prevention of typhoid fever in men; or that, when the optimum dissociative state has been determined, the Rawlings strain cannot be so maintained.

The navy[2] had been experiencing 25 to 75 cases per 100,000 for several years. Early in 1910 voluntary administration of vaccine was begun and the rate immediately drop-

ped to less than 10. In 1912 vaccination was made compulsory and since that time the rate has been below 5.

Two years ago the Georgia State Department of Health Laboratories made certain changes in the preparation of typhoid vaccine. The most important change was the substitution of a recently isolated "smooth colony" strain of B. typhosus as the source of antigen in place of the old "rough" Rawlings strain which had been used almost universally for the past thirty years.

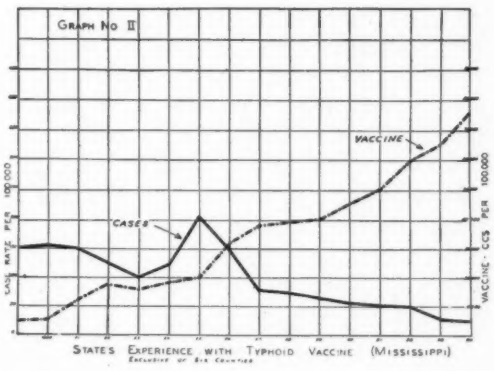
The occasion for the adoption of a new antigen was brought about by the following factors:

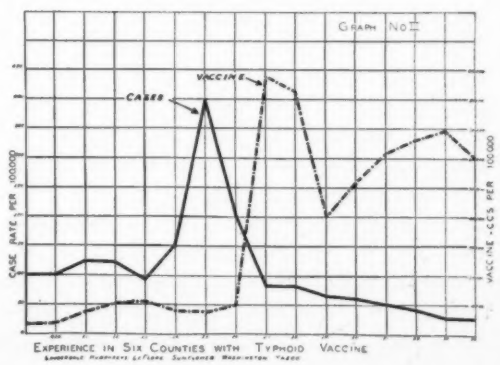
1. An increasing number of reports of failure of the Rawlings strain vaccine to protect.

2. The announcement of certain investigators (Grinnell, Arkwright, Larkum, et al) that most Rawlings strains were "rough" and therefore degenerate and incapable of producing adequate protection against "smooth" strain infections.

In a recent communication to the writer, Dr. Seckinger [3, 7] stated: "We can now add observations on the incidence of typhoid among vaccinated individuals in 1934 during which year I followed up nearly 700 cases and encountered only three who had been immunized within the period of one year with the new vaccine. I am satisfied that the vaccine we are now using is very much more effective than the old vaccine. At one time I was of the opinion that all of the weakness of the old vaccine was due to the Rawlings strain. I now question this since it has been shown that all variations between strictly smooth and rough strains occur among the sub-strains of Rawlings. The apparent weakness of our own vaccine seems to have been due to the fact that the sub-strain of Rawlings we were using was somewhat degenerated. This is certainly borne out by our mouse protection tests. Mice inoculated with the old rough Rawlings strain are promptly killed by the injection of a smooth strain. On the other hand mice inoculated with vaccine made of the smooth strain are not affected by killing doses of any smooth strain. In fact we have difficulty in getting any kills at all with the old Rawlings strain."

Mississippi was divided into two areas to study the effect of vaccination. The six counties of Lauderdale, Humphreys, Leflore, Sunflower, Washington, and Yazoo were selected as one group population of about 309,703, and the remainder of the state population 1,787,798. As no complete records were obtainable of vaccination for either group, the number of cubic centimeters of typhoid vaccine distributed by years was used and on the graph were plotted as two year accumulations except the first year 1920. An inspection of Graphs II and III shows a definite influence on the typhoid case rate in each instance, although it is not possible to say exactly how much. From the time the vaccine distribution reached a height of 25,000 c.c. per 100,000 persons there has been no further peaks and the trend is steadily downward.





Efforts at sanitation employed by the public health movement have as their basis the proper disposal of human excrement. A generation of sewer builders has succceeded in greatly reducing this source of pollution in our larger cities. Then came the organization of sanitary water supplies, and finally such auxiliary control measures as the supervision of food supplies, the control of milk production and distribution, including pasteurization. The supervision of "carriers," the attack upon the fly menace, the movement for rural sanitation, and antityphoid vaccination in polluted areas have rounded out the general program of complete control.

Let us now examine, in the light of some historical series, what has been the effect of the various measures adopted against the spread of the disease. A good example is that of Chicago, but much the same story could be told of any large city of the United States. During the first half of the period 1880 to 1934, even when there was no severe epidemic, the general level of mortality throughout remained high. Quite different is the picture presented by the later half of the series, in which peaks of 53 in 1896 and 45 in 1902 stand out as what we to-day would consider very bad epidemics, though they are far below the level of the earlier figures. Since 1902 no outstanding peaks have occurred, and the death rate from typhoid fever has followed a steady course that may well be regarded as its approach to virtual extinction.

So much for bare figures. What are the facts underlying these peaks and valleys in the curve? In the very early part of the series of years shown in the diagram, Chicago used to take its water from Lake Michigan, the intakes being located near the shore. It is not surprising that under these conditions severe contaminations occurred. In 1867 the first step was taken toward improving the method of collecting the water from the lake.

The terrible epidemic of 1891 is perhaps not fully understood. Simultaneous epidemics occurred in many other cities, in addition to Chicago. The rather steady decline in the curve for Chicago which may be said to begin with the year 1896 was ushered in by the introduction of the Widal tests and daily water analyses. In 1900 the Chicago Drainage Canal was opened. Over the period 1905-1908, intercepting sewers were built to minimize lake pollution. The first pasteurization ordinance was passed in 1908. In 1912, experiments with chlorination were begun. Chicago today watches every case of the disease, and recovered patients are not permitted to engage in any occupation involving food handling until the Health Department's laboratory examinations show that the patients are free from typhoid bacilli. Vaccination against typhoid fever is also encouraged, and, of course, there is stringent examination and control of the sanitary qualities of shellfish. The department also makes every effort to find typhoid carriers. That all of this work has been effective is shown by the fact that in 1933 the typhoid death-rate was three per million, representing 78 cases and 12 deaths in the city of Chicago[4].

While vaccination and sanitation are being considered, we must not neglect one special feature of typhoid fever control and that is specific measures for the control of carriers. Cummings[5], in referring to an outbreak in Washington in 1922 said, "About 400 persons attended a church supper. In forty-four of these typhoid developed, and four died. In the resultant investigation by the department of health, all foods served at the supper, except one, were ruled out as sources of typhoid infection. This was the potato salad; this one food had been eaten by all those taken sick. The dressing used in this salad was eliminated from suspicion, because it had been boiled. It was evident, then, that the potatoes alone were the vehicle of typhoid transmission.

"In the preparation of the salad, the boiled potatoes while still warm had been peeled and diced by four women. During this peeling and dicing process, hands, soiled with typhoid bacilli, had deposited their germs on the potatoes. The pans containing this food had been covered with towels and set aside until the next day, thus retaining the warmth and providing an excellent culture medium; consequently, contamination was multiplied many times.

"Two of the four women who had peeled the potatoes proved on examination to be typhoid carriers. One of these had a history of typhoid fever twenty-two years previous. In the interim there had been six cases of typhoid in her immediate family; in the case of the other carrier, no history of the disease could be secured. It is interesting to note that an examination of specimens from both carriers in 1927, five years after the outbreak, showed that they still harbored typhoid bacilli.

"In the department's laboratory, we were able to duplicate the transmission phase of this outbreak. Both carriers were prevailed on to boil, peel and dice a number of potatoes. These were then taken to the laboratory where they were incubated for twenty-four hours, then examined for typhoid bacilli. The organism was isolated from only one of the two specimens. It is noteworthy that the carrier who prepared the specimen found to be negative had insisted on thoroughly washing her hands before the operation was undertaken.

"As the next step in the investigation, we undertook to determine the influence of hand cleanliness on typhoid distribution. First, the hands were lightly contaminated with typhoid bacilli. Boiled potatoes were prepared and incubated. There were four such tests, and typhoid organisms were isolated in each experiment.

"In the next series of tests, the hands were contaminated with typhoid, then thoroughly washed with soap and running water; the potatoes were then prepared as before. Four such tests were made, and all proved negative, indicating the importance of clean hands in breaking the chain of transmission."

Within a given area, the typhoid hazard of the population will depend upon

(1) the number of foci infection,

(2) the openness of channels along which infectious material travels, and

(3) the proportion of susceptibles in the group.

If there is a large number of each of the above, there is proportionally greater danger that typhoid bacilli will find their way from one of the foci, through some open avenue of infection, to one of the many persons who has no resistance to the disease.

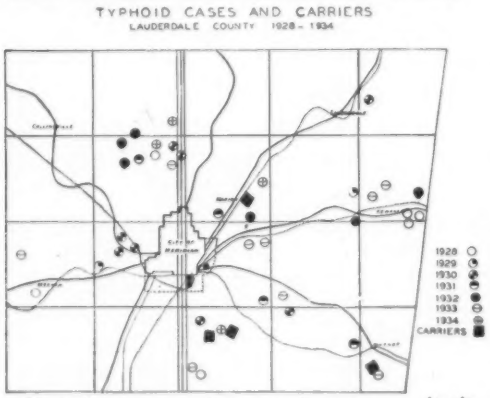
It is important to bear in mind those differences in results to be obtained through environmental sanitation in the city on the one hand, and in the county, on the other. Blocking of intermediate channels of infection in a city situation is practicable and eliminates typhoid, except for sporadic cases or occasional outbreaks when some barrier breaks. In rural areas, endemic typhoid may persist in spite of attempts at environmental sanitation. These statements may appear iconoclastic, but should not be so considered. Rather, they are made in an effort to offset the assumption that in a rural situation a sanitary privy program will serve the same purpose as sewers and a protected water supply in the city. By all means, let the rural health officer conduct a program for safe disposal of human excreta and for protection of water supplies; but let him not forget that there are distinct limitations to the instruments used, that completeness of installations is difficult to obtain and more difficult to maintain, that sole reliance may not be placed on such measures.

From the writer's[6] experience this may be cited. In a Southern county, 11,760 persons received typhoid vaccine during a period of five years; about 22,000 others, living under similar conditions in the same county, did not. In the vaccinated group there were eight cases of typhoid fever and no deaths from that disease; in the unvaccinated group, 265 cases and 37 deaths. In view of this and other experiences, it seems justifiable to regard typhoid vaccination as an important method for control of typhoid fever, and with avenues of infection still open, as a necessity for mass protection, in that it decreases the number of susceptibles in the population.

The discovery of foci of infection depends upon the thoroughness and intelligence with which the search is undertaken. This search must be a never ending affair, with continuing accumulation of usable information which is used. The focus of first importance is the current case. This current case was caused

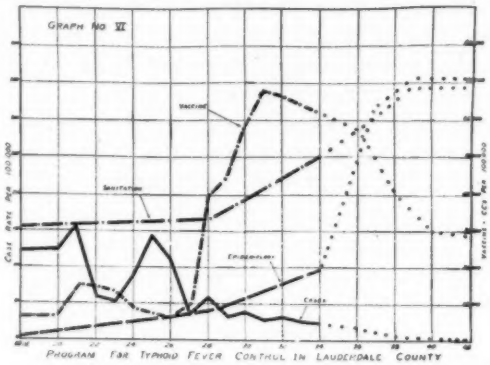
by some other focus and is itself, potentially able to engender additional foci. In order to discover both source and spread contacts of this case, the health officer must furnish facilities for and encourage prompt diagnosis, immediate report, quick and complete investigation and effective control measures in each instance. He may to some extent measure his performance in investigation and control by determining, on an annual basis, the per cent of cases in which he discovered the focus (not the channel of infection) and the per cent of known clinical cases which gave rise to secondary infections.

Chart No. V was prepared to aid in the control of typhoid fever in Lauderdale County and shows the kind of grouping that a year to year accumulation of cases will show. The groups indicate the areas in which intensive search should be made for foci of infection and also the areas which should have special attention in the immunization and sanitation program. To date seven carriers, who may have been the source of infection, are spotted on the map.



Realizing then that vaccination, sanitation and epidemiology are all of undoubted value in control, the next problem is just how to employ those instruments in the plan.

Chart No. VI[8] is intended to show the different phases of the plan of control in Lauderdale County. The first period is from 1920 to 1927, during which time sanitation was 30 per cent to 40 per cent, vaccination rate less than 10,000 c.c. per hundred thousand, and epidemiological study less than 5 per cent effective. The typhoid fever rate was high and fluctating, being from 50 to 150 per 100,000.



In 1928 the Health Department was organized and an immediate intensive mass vaccination of people instituted. Sanitation in the city and county was improved up to a point of about 70 per cent effectiveness. Epidemiology did not receive so much stress, as the case load was too overwhelming, but records were started.

By 1934 the case rate had fallen to around 28—30 per 100,000 and it seemed time to institute new tactics; consequently the new plan is to reduce mass vaccination to a low level and instead use selective vaccination; selecting, (1) contacts of cases, (2) contacts of carriers, (3) residents of high typhoid incidence areas, and (4) school children. This group has a long life ahead and for one of them to have a case and become a carrier is a real calamity, both to him and the community. This program should reduce the amount of vaccine used to about 25,000 c.c. effective per 100,000 (vaccinate annually 5,000 per 100,000 population) and possibly we could remain on this level for several years.

Epidemiological control of cases will be made as nearly 100 per cent as possible by study of all cases for source, and if carriers are found they will be supervised to prevent food handling or dangerous contact of any kind with the community. They will be taught personal hygiene and asked to sign an agreement to protect the community in all ways possible. Annual stool and urine cultures will be made to determine the infectious state of the carrier.

Sanitation will not be neglected but simply the installation of a privy will not be considered adequate sanitation. All homes must be

equipped with hot and cold running water, inside bathrooms, protected water, and screens before they are considered completely sanitated.

SUMMARY

1. Typhoid vaccine in adequate dosage given to groups of people to an effective rate of 25,000 c.c. per 100,000 persons annually or more, will influence the typhoid fever case rate and if given to more than 90 per cent of the population will control it.

2. Sanitation alone will greatly reduce typhoid fever, and in conjunction with other aids will control it.

3. The carrier is the source of infection in an increasing per cent of the total cases, as control measures become effective case to case infection is relatively easy to prevent.

4. Mass typhoid immunization should be abandoned, and selective immunization used as soon as a stable low case rate is attained. Selective immunization is aimed to protect those known to be in especial danger from cases or carriers or from environmental factors.

5. Complete epidemiological study of cases is difficult while the case rate is high, but records may be prepared for us in such study, as soon as the case rate is reduced by vaccination or other factors.

6. Final reliance for typhoid fever contro in an area should rest on intensive case and carrier work and sanitation, meaning sanitation in its broadest aspects of ensuring good personal hygiene.

7. Lauderdale County has apparently reached a low stable incidence of typhoid fever and is ready to reduce mass immunization in favor of selective immunization, sanitation, and intensive case and carrier control.

8. The State of Mississippi is probably ready to gradually reduce mass immunization as a policy in counties with full time service as a low stable typhoid case rate has been attained. However, this can only be done if intensive epidemiological study and control of cases and carriers is instituted and maintained and a high degree of sanitation is reached.

ACKNOWLEDGMENTS

In the preparation of this paper, the following persons are extended sincerest appreciation for the opportunity to use their ideas and to quote directly in several instances:

1. Paul R. Hawley, M. D., Dr. P. H., Washington, D. C. James Stevens Simmons, M D., Washington, D. C. "The Effectiveness of Vaccines Used for the Prevention of Typhoid Fever in the United States Army and Navy."
2. S. S. Cook, M. D., Dr. P. H., Washington, D. C: "Efficacy of Typhoid Prophylaxis in the United States Navy."
3. Daniel L. Sockinger, M. D., Dr. P. H., Atlanta, Ga. "Epidemiological Studies Upon Typhoid Fever in Georgia: Problems Associated With Its Control."
4. Statistical Bulletin, Metropolitan Life Insurance Company, New York City. "Half a Century of Warfare Against the Typhoid Fever Bacillus."
5. James G. Cumming, M. D., Dr. P. H., Washington, D C. "Should The Barriers Against Typhoid Be Continued?"
6. Harry S. Mustard, M. D., Baltimore, Md. "Typhoid Fever Control With Special Reference to Residual Typhoid."
7. T. F. Sellers, M. D., Atlanta, Ga.: Personal communication.
8. A. L. Gray, M. D., Jackson, Miss. "The Importance of an Epidemiological Investigation." (State Medical 1934).

Also, although not quoted specifically, the writer feels deeply indebted for permission to read papers and personal communications from the following authors:

1. T. W. Kemmerer, M. D., Jackson, Miss.—Personal communication.
2. W. S. Leathers, M. D., Nashville, Tenn.—Personal communication.
3. H. A. Kroeze, C. E., Jackson, Miss.—"A study of the Effectiveness of Rural Excretia Disposal."
4. F. J. Underwood, M. D., Jackson, Miss.—"Appraisal of County Health Work Based on Reduction of Morbidity and Mortality." (La. State Medical—1931).
5. J. B. Black, M. D., Murphreesboro, Tenn.—"Typhoid Fever in Rutherford County."
6. Dr. W. C. Williams, Nashville, Tenn.—"The Typhoid Fever Control Program and the Results of Twelve Years Work in Williamson County, Tenn." (Amer. Pub. Health 1934).
7. Miss Carolina R. Randolph, New York City—Statistical Data.

DISCUSSION

Dr. Robert E. Schwartz (Hattiesburg): Dr. Galloway's paper with his illustrations I think is self-explanatory to all of us and it is very interesting, especially to note the effect of our typhoid vaccines along with the decline in the number of cases of typhoid fever. Being interested in the health education angle of our public health work, it has been very interesting to me to note in the last six years, the number of students entering our state colleges that are immunized against typhoid fever, as compared to those of six years ago. It is also very interesting to note in view of those charts, the great number of students entering our state colleges who are not immunized against typhoid fever. I believe on checking up you will find that most of the students in the colleges who are not immunized are from those counties who do not

have an active health unit. I may not be correct in that, but I believe we will find that this is correct. Also it has been very interesting to note the number of our public school teachers who are so ignorant of the means of transmitting and the prevention of typhoid fever. In my tests I usually get contact with most of my public school teachers on many of the phases of health education. It is appalling to note the ignorance of those we have teaching our children along some of these lines of health education. We are trying to teach them,—these prospective teachers, the main essentials of sanitation to prevent these invasions and especially those along the line of typhoid fever, diphtheria and tuberculosis.

Now in the handling of, or trying to immunize these college students, I find it very hard to get some of them to take the inoculation or vaccination. I have been finding it a little bit easier the past year, especially when we can tell them we can give them the vaccine that does not knock them out, or does not make them seriously sick. I refer, of course, to our sensitized vaccines. I do not know if they will last as long as the other forms of vaccine; also this new vaccine they are giving orally, I am very interested in what the profession is going to think of the oral vaccine against typhoid fever. I still think that our major point to carry out to do away with our mass immunization in favor of selective immunization has to be reached through our educational department, and of course that in conjunction with our public health department is absolutely necessary.

Dr. A. L. Gray (Meridian): In the study of typhoid intensively in six counties of Mississippi in the last two years, we have come to some very definite conclusions about the source and mode of transmission of this disease at the present time in Mississippi. No doubt but that in 1925 our case rate was very high. For instance in Leflore County we had 250 or 300 cases in one year. No doubt our best method of control was mass immunization. We are willing to submit to that. Since that time our case rate has dropped immensely, and within the last five or six years it has reached more or less stable incidence. We find in going into the records in the various health departments that in some of the counties at the present time to reduce the typhoid incidence by one case by mass immunization alone without selectiveness we would be required to give at least 4000 people immunization in that county. To prevent one death on the same basis we would be required to give 9000 complete immunizations. Are we justified in going ahead with that type of schedule in preventing typhoid fever? After studying this problem closely I feel that we are not justified in going ahead from year to year with our mass immunization, when in given counties we are having from no cases to 15 or 20, and in those same counties we are giving from 5 to 40,000 doses of vaccine. We are not all exposed to typhoid fever. It is true in 1925 a large percentage of us were exposed to typhoid, but through the use of mass immunization whereby large groups of people were immunized, this chain of infection was more or less broken to the extent that at the present time our incidence has come down to a very low level. Yet our typhoid fever problem is not solved, because if we let up on our mass immunization and mass sanitation without substituting some other method of control, the typhoid incidence will probably go up in a few years. Now, it is not Dr. Galloway's idea, I am sure, that suddenly we reduce our mass immunization program. Instead I think his idea is this—that as our individual case study goes forward from year to year, that within a period of five to 15 years, we will have located a large enough percentage of the carriers who are causing the cases that our immunization scheme can then be limited to those who are most intimately exposed to those carriers.

In the study of these several cases in these counties in the last two or three years, we find that the usual history around the typhoid carrier is this—that maybe in 1904 the father or the mother or the grandmother had typhoid; that every two or three years since that time there has been a case of typhoid in that family, or in some close contact with that family. Those most usually and most intimately exposed to carriers are first, of course, the members of the household in which the carrier exists, and second, the close relatives who live nearby and are frequent visitors in the carrier's home, and third, close neighbors who are intimate friends of the carrier and are visting the carrier frequently. Now we feel that with our thorough study of every case we will find carriers that are causing our cases of typhoid fever, and that going further we will find from questioning the family of the carrier the individuals that are most likely to be exposed to the carrier outside of the family. Knowing those individuals who are most likely to be exposed we put forth especial effort to get those individuals immunized every two years, because in those groups of people who are in close contact with the carrier we should take no chance, and should see that those individuals get this immunization as frequently as possible, at least every two years. As that scheme increases and a large percentage of our carriers are located then our mass immunization can, and I feel should be decreased, because thousands of people in Mississippi are getting typhoid immunization, who are not likely to get typhoid fever. Of course, after we have located

our carriers there is quite a bit of educational work to be done among the carriers' families and with the carriers. This individual must be taught in simple language how he is likely to give the members of his family, neighbors and relatives typhoid fever, and that he should refrain from doing those things that would give those individuals typhoid fever. Through that method we find that the most ignorant colored women will soon catch on to what you are trying to put across. Some individual might say we can not go far with our education especially with the colored people, among whom we are finding most of our carriers. In Leflore County we found a carrier that was a colored women about 45 years old. She was an ardent church worker, and, as is usual in the colored communities she attends one or two large dinners every summer at the church. We had gone to this carrier and told her that she should not do so and so, and among other things that she should not handle food to be consumed by anybody other than the members of her own family. She had always responded to the church dinner affair by carrying a well filled basket. It so happened that shortly after our instructions to this colored woman, they had the usual church dinner. Mary went out without her basket. The parson was very much astonished and asked her what was the trouble, and she replied that the health doctor had told her she must not handle food for anybody other than her own family. It so happened that in that particular community there had been five or six cases of typhoid among her neighbors within the past four or five years.

Dr. H. C. Ricks (Jackson): I believe Dr. Galloway is going right down the middle of the road with what we all believe is a possibility in the future. There are some warnings that I want to drop here about typhoid vaccine. I am glad that Dr. Schwartz mentioned this socalled desensitized vaccine that is being put out by the commercial houses.

It is indeed remarkable that some individuals are so afraid of a reaction following the administration of typhoid vaccine. The desensitized vaccine possibly does not produce a reaction as severe as the vaccine produced and distributed by the State Board of Health. The real question is—does it provide the same protection to the individual inoculated. There is reason to believe that the reaction following the administration of typhoid vaccine is governed to a very large extent by the number of organisms per c.c. of vaccine administered. The reaction may be reduced to some extent by repeated washings of the vaccine suspension, the cost of which is out of proportion to the reduction in reaction.

The United States Army, in 1925, reduced the organism content of its typhoid vaccine in order to reduce the reaction following its administration. As a result of this reduction in bacterial content of the Army vaccine, there was an increase in the incidence of typhoid fever reported in the personnel of the Army.

The typhoid vaccine used by the United States Navy is prepared by the Army Medical School. The Navy did not have the bacterial content of its vaccine reduced in 1925. There was no reported increase in the incidence of typhoid fever among the personnel of the Navy as occurred in the Army.

The vaccine prepared by the Hygienic Laboratory of the State Board of Health has 1,000 million killed typhoid organisms per c.c. You may get some reaction but this is of no importance when the immunity produced is being considered. This vaccine is distributed without cost to any physician in Mississippi. More than 700,000 c.c. were distributed and more than 600,000 doses reported administered in 1934 with no serious reaction reported.

Typhoid vaccine as any other biological product should be stored at a temperature between 38°F and 50°F. if it is to retain its potency. Do not use typhoid vaccine or any other serum or vaccine that has been stored in a candy case or on a drug store shelf. Some of us have been guilty of placing vaccine and other biologics in our instrument cabinets and on the floors of our offices. This practice is forbidden by State Board of Health regulation, so please let's keep our biologics properly refrigerated and get the results we expect when we administer them.

Mass immunization may be discontinued at some future time; however, so long as we have the number of carriers, known and unknown, that we now have and so long as the typhoid incidence in neighboring states is as high as it is we must depend on and encourage typhoid immunization at every opportunity.

Dr. F. M. Smith (Vicksburg): Once upon a time a man climbed into a sycamore tree to see above the crowd, and when the Great Teacher passed by he said, "Come down Zaccheus" as if to say "be with the common people." So I was at home down there on the floor with the rest of you, yet you demand that I get up here in front of the amplifier. Nevertheless, I am at home again today when I heard this excellent paper brought to us of our "old enemy," one of the "filth borne" diseases. It has been of intense interest to read and listen to this comprehensive discussion of typhoid fever, how it may be prevented, etc. The paper has begun with a discussion of the strains in the immunization vaccine that were used years ago, has briefly referred to the rough and slick colonies, has discussed the question of protection

offered by typhoid vaccination that has come up in recent years, has dealt with the value of sanitation in its broadest sense, has emphasized the importance of supervision of food handlers, etc. Much could be said, but let me invite your attention briefly to the summary. You have a copy of the paper before you, and I will ask you to turn to paragraph 2: "Sanitation alone will greatly reduce typhoid fever, and in conjunction with other aids will control it." If we could perfect sanitation, if every iota or particle of human excreta, the excretions from the urethra and the bowels, could be properly disposed of, we might say that we would have a perfect control of typhoid fever. But inasmuch as this is not attainable, inasmuch as we have carriers who may contaminate their own hands and fingers, there is this problem that arises and here is another broken link in sanitation. Should we vaccinate every individual with the required or recommended amount of vaccine, we have no way of determining the potency of this vaccine, nor can we fully accept as yet the practicability of reading the changes in the blood, the agglutinating properties and the bactericidal factors for determining who is successfully vaccinated. We have no way of determining the mass infection that this individual may afterwards get, and though we vaccinate everybody a certain percentage of vaccinated people will develop typhoid fever. Therefore, we cannot claim that vaccination within itself is absolutely positive in its control.

Second, he says: "The carrier is the source of infection in an increasing per cent of the total cases." That is perhaps entirely true. I am wondering sometimes though if we are not getting the idea that carriers are only confined to that class of people known as food handlers? Do we realize there may be carriers in other walks of life? Do we realize that the deposits of excreta from these carriers harboring typhoid germs may under favorable conditions in the out-door toilet keep potent and virulent these organisms, that they are not killed by freezing? Is it not evident that carriers have a way with the assistance of the house fly, etc., of transmitting the typhoid to us other than by food handlers.

Let us consider the further part of that paragraph: "case to case infection is relatively easy to prevent." Probably it is now true that we have few cases coming from cases, but in small towns and rural districts in North Mississippi a number of years ago, when a family developed typhoid they threw out on the ground or deposited in an open toilet the excreta from the case, and those who waited on the patient would go from the bedside to the old fashioned well and put their contaminated hands on the bucket or rope and thus carry infection into the drinking water, and the friendly hog who sheltered himself in the shade of the old open back toilet and wallowed in its filth afterwards rubed himself against the curb of the well, and the water became a source of infection, and I am wondering if that chain has been entirely broken.

I want to invite your attention to the next paragraph: "Mass typhoid immunization should be abandoned, and selective immunization used as soon as a stable low case rate is attained." That may be eminently correct, but the question arises in my mind, has that been proven yet? Can we abandon mass immunization inasmuch as our susceptibles reproduce themselves perhaps in two years after vaccination, inasmuch as there is doubt about vaccination being 100 per cent proof.

Now "selective immunization is aimed to protect those known to be in especial danger from cases or carriers or from environmental factors."

Now, if we wait until we have a case, until we begin to vaccinate, I am afraid we have lost the battle to a great extent.

Immunization must be given, to protect, at least three months before protection is needed. Of course, where there is a carrier in the family others should be immunized for that carrier lives on. With this and other facts in mind I am wondering if we are ready to abandon mass immunization as yet?

Briefly in concluding I would like to emphasize that typhoid fever is a menace to every individual. A certain percentage of the people immunized may reduce the case rate, but there is always that individual here and yonder who will develop typhoid fever and perhaps lose his life. It is inconvenient and painful to go through that three weeks' experience that we have from vaccination. I would be glad to see it reduced—I would be glad to say "let's lay down the burden of immunization" but if some one here and yonder must pay the price for this with a case, at times a fatal case of typhoid fever, the inconvenience of vaccination fades into insignificance in my mind in evaluating the responsibility we have to that indivdual and to that family.

Dr. Galloway (closing): I do not have anything further to say. I had my say a while ago. Thank you.

THE VALUE OF BLOOD COAGULATION*

GEORGE E. ADKINS, M. D.
JACKSON, MISS.

The practice of routine blood coagulations receives no defense at my hands, neither do I offer condemnation to the practice as a routine, if some one wants to make it a part of their examination. I appeared in the field of medicine and served rather an extensive internship in a pretty thorough hospital and heard nothing of a coagulation test until a few years later.

I had gone along doing ear, nose and throat surgery with an occasional bleeding that necessitated additional attention but fortunately, and for which I am very thankful, had no fatalities, but as time passed on I noticed many articles in journals on the subject and later found a friend of mine in the courts as the results of a fatal hemorrhage following a circumcision in less than a week old patient. In the course of the court proceedings the lawyer laid great stress on the coagulation time, and in such cases it is certainly of value. This, along with the general trend of things caused me to resolve that I would operate upon no cases unless a coagulation time was taken and then only when the coagulation time was in the normal range.

Within one week after the beginning of the routine coagulations I felt that I was well repaid when we landed a case with a coagulation time of eight and one-half minutes, although the case was a female and had been previously operated on for a goiter. This patient was put on calcium and asked to report again in fifteen days at which time the coagulation time was found to be thirteen and one-half minutes. When asked what could be done, I quoted from a friend of mine who had removed one tonsil and had rather a difficult bleeding, "as far as I am concerned they have found a permanent resting place." A few days later we checked up another, an adult female, that gave us a coagulation time of seven and one-half minutes. This case was treated for ten days and returned with a coagulation time of ten and one-half minutes. After the second case had been stamped as a bad risk I was told by the first patient's husband that the home physician had removed the tonsil and had no bleeding. I took shelter under the old adage of "fools rush in where angels fear to tread", but when I landed the third case again, an adult female with a coagulation time of ten minutes, a niece of a good physician who was to treat her for a few days and when just one week later the coagulation time was found to be three and one-half minutes I thought I had found the remedy, but later when the uncle informed me that he had done nothing I began to think that probably there was something else to learn so I began to take the coagulation time and when found over the normal to retake every few hours.

Four more cases of extended coagulation times were noted in the records making seven out of one thousand extending over a period of three years, six of which were adult females, four mothers and a boy seven years old who only gave a coagulation time of six and one-half minutes. We found, from repeated tests, that on the same day that there was a tremendous fluctuation in the coagulation time and recorded one girl who dropped from ten and one-half minutes to three and one-half minutes in one hour.

Our method of testing was to fill three capillary tubes from each case and we noticed that the second tube always, and as a rule the third tube, coagulated before the first. This we accounted for by the bruising of the blood platelets as the first drop came, apparently, without being squeezed out, the third pressed firmer than the second. In this series there were only three cases refused tonsillectomies; one of these, as already stated was operated on by some one else and without trouble. Later, I learned of some of the fallacies of the test and operated upon the other two neither of which had trouble.

It is not my intention to enlighten the medi-

---

*Read before the Section on Medicine at the Sixty-eighth Annual Session of the Mississippi State Medical Association, Biloxi, May 14, 1935.

cal profession, however, I hope this article will be of value to some, but I do think there should be something of record along this line to be referred to when some one becomes a victim of the courts. Naturally, from the results that I have tabulated, the practice of blood coagulations as a routine has been discontinued, however, when it is mentioned by the patient or some member of the family we gladly do the test for this again would be a support in a legal battle if an accident should occur. I was rather gratified to read from an article from the Manhattan Throat Clinic that they have discontinued the routine coagulation tests.

As I mentioned before, this series consisted of one thousand cases, extending over a period of three years, and that only seven cases were found to rquire more than the normal time for coagulations, six of which were female and four of this number being mothers, and one boy seven years old who only went six and one-half minutes. We have always been taught that bleeding tendencies in the male were much stronger than in the female. This we did not find true, and it has been my conclusion that when a patient is losing blood it is very probable that it is coming from a vessel and not a denuded surface. I take no stock in the so-called "oozing".

There are many things, apparently, that affect the coagulation time, such as fright, hyperactivity on the part of the patient, chronic malaria, jaundice and probably the hyperthyroid cases have some bearing. I do not think that arterio-sclerosis or high blood pressure plays any part. It has been my experience that people with high blood pressure coagulate rather quickly. There are a few mechanical apparatuses that tend to change the coagulation picture; such as, the sharp or blunt needle with which the puncture is made, the size and temperature of the capillary tube would all have to do with it and certainly the act of pressing the blood through the opening has a considerable bearing on the coaglability of the blood. Apparently, the slightest bruising of the blood platelets shortens the time considerably.

DISCUSSION

Dr. E. LeRoy Wilkins (Clarksdale): I feel that this paper is too valuable to go without some discussion. And speaking of this loan business, I want to take a shot at somebody. We, the Eye, Ear, Nose and Throat Section, are supposed to have two papers to appear before one of the general sections, Medicine or Surgery, and you did not invite anyone but George Adkins. I am sure that you could not have invited a better one. We were made to promise, before we were permitted to form a seperate section, that we would present two papers, each year, before the general sections. Our section is ready to do just that.

Dr. Adkins has told us some things that I am sure many of us have wanted to know, and have been searching out. His paper shows a great deal of study and work. I am glad that the strict routine taking of clotting time is being discontinued. In questionable cases it is necessary. I have had some cases, three in particular, where I have had severe bleeding after operation, whose clotting time was taken at less than five minutes. I have operated upon others with clotting time of eight or nine minutes, without the least trouble, taking little precaution in advance. Certainly we should ask enough questions to ascertain if there is a bleeding tendency, then make the test and in the long cases take the necessary precautions. I no longer take the coagulating time as strict routine. Only in those cases where there is some question, or the patient requests it.

We want to watch those oozing cases that Dr. Adkins mentioned, more closely, and I am sure that in almost 99 in 100 the bleeding will prove to be coming from a small vessel that we did not tie, or that has broken loose. Particularly is this true in tonsillectomies.

SO-CALLED AGRANULOCYTIC ANGINA WITH SPECIAL CONSIDERATION OF THE CAUSAL AGENTS*

WILLIAM H. HARRIS, M. D.
and
HERBERT J. SCHATTENBERG, M. D.
NEW ORLEANS

Following the first replete description of "agranulocytic angina" by Schultz in 1922 there was comparatively little activity recorded in medical literature concerning this disease. During the past five or six years, however, numerous case reports with various suggestions

***Read before the Louisiana State Medical Society, New Orleans, April 29-May 1, 1935.**

as to the causation and a few articles dealing with experimental investigation have been published.

Like certain other diseases wherein the name primarily given does not accurately apply, a number of suggestions in this regard have followed such as malignant neutropenia, mucositis necroticans agranulocytica, granulocytopenia, granulopenia, etc. While we feel that from the hematological standpoint a name such as granulocytopenic leukopenia is applicable, this does not include certain clinical phases that are more or less constant; in addition to this fact, the apparently protean causative factors would justify the designation, "Schultz syndrome" as the simplest and most fitting.

CLINICAL

These cases present a fairly characteristic clinical picture. The onset of the disease is rather sudden and the patient complains of great weakness, some cases even show extreme prostration. Pallor, a slight degree of fever, a poorly functioning heart and necrotic throat lesions are seen in a majority of cases. Lesions of other mucous membranes such as the vagina or intestine, may occur. The disease occurs more often in the middle-aged white female.

It is to be noted that this disease is typified or recognized by the very striking leukocytic picture of depression of the total leukocytic number and marked diminution or absence of granulocytes with replacement especially by lymphocytes. It is, however, to be stressed that many of the blood dyscrasies, such as acut aplastic anemia, aleukemic lymphatic leukemia, aleukemic lymphadenosis and various other related diseases may present somewhat similar pictures of leukopenia and relative lymphocytosis with granulocytopenia. These features point out the primary irregularities in marrow function or constitutional factors influencing secondarily such hemopoietic structures and are, therefore, of importance in the consideration of this disease. Such phases of the subject confront us at once with the question of etiology or causation.

CAUSATION

Through various publications relative to possible or probable causes, it is to be appreciated that this subject must be approached by the discussion of each possible factor. Such articles have advanced either a special agent or have summarized some of the ascribable factors. Kracke and Parker's recent publication[1] presents a rather replete and comprehensive survey of this phase of the subject under the following headings:

(1) Bacteria—living and dead (vaccines).
(2) Chemicals and drugs.
(3) Allergy.
(4) Endocrine disturbances.
(5) Radiation—Thorium "X".
(6) Bone marrow—idiosyncrasy.

The general facts and pertinent literature connected with each of the above attributed factors are set forth in Kracke's publication to which the reader, if interested, is referred. It is our intention, herein, to briefly discuss each presented cause.

(1) *Bacteria.* Microorganisms recovered especially from the throat lesions and to some extent from other sources, blood, intestine, etc., have all been mentioned and form a rather varied and bizarre group such as the streptococcus group, staphylococci, pneumococci, B. enteritidis, B. pyocyaneus, B. coli, B. proteus, Vincent's organisms, B. welchii, B. suipestifer, etc. With the last named microorganisms, Fried and Dameshek produced in rabbits granulocytopenia. Most of these bacteria, however, when injected into laboratory animals yielded negative results. Dennis[2] employed rabbits and introduced into the peritoneal cavity various bacteria contained in parchment capsules. He produced through the diffusion of the toxins some degree of granulocytopenia. In our experiments[3, 4, 5] we employed toxic filtrates derived from peritoneal exudate by primarily producing in guinea pigs a peritonitis with Streptococcus aureus, B. enteritidis and Streptococcus hemolyticus. We, also, used the toxic filtrates of B. welchii, produced in vitro. The cultures of B. welchii, Streptococcus hemolyticus and B. enteritidis were obtained from the intestinal tract and the Staphylococcus aureus from the blood of a case of "agranulocytic angina." The

respective filtrates were injected subcutaneously, intraperitoneally and intracardially into various series of rabbits and guinea pigs. We were able, with repeated injections of such in vivo prepared filtrates, to produce reduction of the number of leukocytes as a whole and of the granulocytes in particular. This method of obtaining toxins had been employed by one of us[6] in previous experiments upon the production of the pathology of typhoid fever with an accompanying leukopenia as low as 1000 cells per cubic m.m.

Several records of marked granulocytopenic leukopenia following the intravenous injection of typhoid vaccine (killed bacteria) have been published. One such unpublished case occurred here in New Orleans at the Touro Infirmary[7].

The experiments with bacteria or their toxins that have been reported show only the fact that it is possible by varied procedures to reduce the total number of leukocytes and granulocytes through such means. They suggest only one of the procedures through which the blood picture of the Schultz syndrome may be produced. In this connection the striking granulocytopenia and leukopenia produced occasionally by the intravenous injection of typhoid vaccine, is an indication of how, upon certain provocation, the leukoblastic balance may be disturbed.

In connection with bacterial poisons, it must be noted that a great percentage of typical cases of the disease show necrotizing and destructive lesions through which bacteria and their poisons may invade. Although it has been contended that such lesions are secondary to a primary neutropenia, it is to be remembered that cases do occur in normal people wherein a tooth extraction has been followed by extensive ulceration, neutropenia and death. Piney[8] cites a case of fatal peritonitis following gangrenous appendicitis in which the leukocytes were 900 per cu.m.m and 700 of these were lymphocytes. Other instances of overwhelming infections may also show such blood changes and certainly acute cases of so-called agranulocytic angina are often of this character.

(2) *Chemical*: We are all familiar with the depressant or destructive properties of benzol or benzene upon leukocytes. Selling[9] in 1910 reported in Baltimore, cases caused by inhalation of benzene vapors from the soldering of cans, in which instance not only did leukopenia and granulocytopenia occur but also manifestations of purpura. This same observer[10] later produced similar leukocytic changes in rabbits by the injection of benzene and olive oil. Hektoen[11] later confirmed these experiments. From these observations ensued the employment of benzol in the leukemias.

With the stimulation of interest in so-called agranulocytic angina, there have appeared numerous case reports in which many different drugs containing a benzene ring were held accountable for the causation of this disease. Madison and Squier[12] have emphasized this factor as a cause and considered that an added amine is essential. Their experiments upon animals, however, were unsatisfactory. In a recent article Kracke and Parker[1] present a compilation of factors and observations of cases which tend to show the relationship of such drugs to agranulocytic angina. The following drugs are enumerated: Amidopyrine, arsphenamine, neoarsphenamine, acetanilid, phenacitin and certain barbiturates attached to the benzene ring. It is considered that there must be an attached amine group. They further stated that they have injected a large series of animals intravenously with hydroquinone, catechol, aniline, para-aminophenol, quinone and phenol and only an occasional animal showed a mild or severe grade of neutropenia.

While barbiturates have been used more in the last decade, various other preparations including acetanilid and phenacetin date back a very longtime. Herein, we again find no proof of causation of the Schultz syndrome but rather leading arguments and observations that may or may not apply in a given instance.

(3 and 4) *Allergy and Endocrine Disturbance*: These have each been advanced as causes and in certain instances appear to be connected in some manner with the etiology of the disease. Allergy after all represents a form of poison which may possibly at times bring about inhibition of the cells concerned herein. Relative to the endocrines, certain experimental observations have demonstrated that such leukocytic blood changes may be produced. Thus Britton and Corey[13] observed marked neutropenia in cats with adrenal insufficiency produced experimentally. When cortico-adrenal extract was administered the granulocytes returned. The work of Kunde, Gree and Burns[14] with thyroidectomized rabbits, and the observations of Hubble[15] point out the influence of the endocrines on the blood cellular elements. Jaffe[16] considered a case of typical granulocytopenia to be attributable to adrenal insufficiency caused by a lymphadenomatous growth found involving this structure.

(5) *Radiation*: The stimulating and inhibitory dosage of roentgen ray and the effects of Thorium "X" upon leukocytes have, of course, been known to us for a long time. It is possible that this field may at times play a part in the causation of the disease wherein radiation has been handled by one not properly qualified. It is likely, however, that other contributory factors such as susceptible bone-marrow, endocrines and the like would play a part herein.

(6) *Bone-marrow Susceptibility*: Under this caption we find a very fruitful source of dissertation. First of all we are confronted with the fact that in this peculiar and delicate blood forming mechanism there may occur alterations of function or of structure that are responsible for the blood findings of various related diseases. In certain of these related diseases such as acute aplastic anemia, aleukemic leukemia, and aleukemic lymphadenosis, a lowering of total leukocytic counts and granulocytopenia frequently occur. It is also to be noted that for such related diseases definite etiological factors have not been proven. It is of interest in considering these diseases, that the bone marrow alterations are not at all specific but are variable just as are those described for the Schultz syndrome. Discussions and observations upon the marrow in this disease have been presented by Jaffe[17]. The factors connected with marrow functioning have been well set forth in the work of Beck[18]. She considers in this disease the occurrence of lack of stimulating factor and failure of bone marrow activity. It is considered in this theory that only certain individuals may possess a bone-marrow that is susceptible to the various influences postulated.

TREATMENT

Numerous therapeutic measures have been advocated in this disease with varying and doubtful results. Whatever form of treatment is instituted, the primary aim always is to stimulate an inactive or hypofunctioning bone-marrow. A few of the more common agents employed are tabulated below:

(1) Adenine sulphate.

(2) Pentose nucleotid ("pentnucletotide," nucleotide K 96").

(3) Dessicated yellow bone marrow, orally.

(4) Leukocytic extract, intramuscularly.

(5) Liver extract, fraction "G" of Cohn, intramuscularly.

(6) Blood transfusion, used cautiously.

(7) Intramuscular injections of whole blood, 30 cc. daily.

(8) Roentgen ray therapy. Use with extreme caution. Light doses stimulate myeloblastic centers, large doses paralyze these centers which is definitely harmful. This type of therapy is best carried out only by an experienced roentgenologist.

SUMMARY

Co-called agranulocytic angina should be called the Schultz syndrome. It is a rather infrequent disease identified primarily by re-

duction of the total number of leukocytes and by a marked diminution or even an absence of the granulocytes. There seems but little doubt that it is to be regarded as a disease sui generis, but it is only the syndrome as a whole that identifies it, since the blood picture found may be duplicated at times by other blood dyscrasias. The associated clinical aspect permits of the recognition of this syndrome.

From an etiological viewpoint, if we are to discard a specific causal agent, which seems plausible, we are at once confronted with the ambiguity relating to the cause of various recognized blood dyscrasias, such as aplastic anemia, von Jaksch's or erythroblastic anemia, aleukemic lymphatic leukemia, aleukemic lymphadenosis or even pernicious anemia. In such a group we find diseases considered either as primary or secondary marrow disturbances and upon which much more extensive work has been done as to the etiology but with no definite results.

In the Schultz syndrome, there is as a rule a necrotizing or tissue destroying lesion in the oral cavity or elsewhere in the mucous membranes of the body. It has been argued that such lesions may be secondary to the lowered circulatory blood defense, rather than a site of primary invasion. The fact remains, however, that the locations of such lesions are fairly constant and that even if there has occurred an occasional instance in which the typical findings of the blood were seen prior to the occurrence of ulceration, there is always the possibility of other such lesions being present elsewhere, yet not discernible. It may be further argued that the heavy bacterial flora normal and variable in the throat renders this area a more likely site of injury from lessened resistance. We should, however, consider the flora of the large bowel and perhaps other areas as well. Again we must appreciate that now and then in other overwhelming infections such as peritonitis following gangrenous appendicitis that such a blood picture may be present. That bacteria and their products per se or through tissue injury combinations, should be discarded as a potential cause, does not seem logical.

It is established that benzol or benzene is capable of producing marked lowering of the granulocytes. It is a fact that many of our more recent drugs as well as those long in use are connected with a benzene ring. It is notable, however, that many such drugs of almost universal and constant usage are not held responsible but rather those that also contain an amine. The carefully compiled histories of many of the reported cases of the disease reveal that drugs containing the benzene and amine "hook ups" have been previously administered. The animal experimentations, however, in regards to such particular types of drugs are probably no more convincing than those carried out with special methods along bacterial lines.

While allergy, endocrine disturbances and radiation are worthy of some consideration as provocative factors, they appear subsidiary to the drug and bacterial theories.

Certainly, bone marrow dysfunction or alterations must receive a conspicuous consideration either from a primary or secondary viewpoint. It seems in order at the present time to recognize, with reservations, however, a multiplicity of factors that may lead directly or indirectly to bone marrow dysfunctioning. It is not unlikely that this interesting and unusual syndrome presenting as it does marked blood dyscrasia, may continue of uncertain etiology, just as have many other diseases of the hematopoietic system already designated.

It is of great importance that we should be on the lookout for the occurrence of this disease, as the early recognition and therapy means the saving of lives. With the profession on the alert for the early diagnosis and with the improved measures of treatment available, many of such cases, heretofore, regarded as condemned to die, will be saved.

BIBLIOGRAPHY

1. Kracke, R. R. and F. P. Parker: The etiology of granulopenia (agranulocytosis), J. Lab. and Clin. Med., 19:799, 1934.

2. Dennis, E. W.: Experimental granulopenia, due to bacterial toxins elaborated in vivo, J. Exper. Med., 57:993, 1933.
3. Harris, W. H. and H. J. Schattenberg, Experimental studies in so-called agranulocytic angina, Proc. Soc. Exper. Biol. and Med., 31:843, 1934.
4. Schattenberg, H. J., W. H. Harris: Experimental studies in so-called agranulocytic angina, Proc. Soc. Exper. Biol. and Med., 31:847, 1934.
5. In Press. Jour. Lab. and Clin. Med.
6. Harris, W. H. and O. M. Larimore: Production of experimental typhoid fever in guinea pigs with in vivo prepared toxic filtrate of B. Typhosus., J. Exper. Med., 48:885, 1928.
7. Lanford, J. A.: Personal Communication.
8. Piney, A.: Diseases of the Blood, pp. 195, P. Blakiston's Son and Co., Philadelphia, 1932.
9. Selling, L.: A preliminary report of some cases of purpura haemorrhagica due to benzol poisoning, Bul. Johns Hopkins Hospital, 21:33, 1910.
10. Selling, L.: Benzol as a leucotoxin, Johns Hopkins Hosp. Rept.
11. Hektoen, L.: Effect of benzene on the production of antibodies J. Infec. Dis., 19:69, 1916.
12. Madison, F. W. and T. L. Squier: Etiology of primary granulocytopenia (agranulocytic angina), J A. M. A., 102:75, 1934.
13. Britton, S. W. and E. L. Corey: Blood cellular changes in adrenal insufficiency and the effects of cortico-adrenal extract, Am. J. Physiol, 102:699, 1932.
14. Kunde, M. M., Gree, F. M. and G. Burns: Blood changes in experimental hyper- and hypothyroidism (rabbit), Am. J. Physiol., 99:469, 1932.
15. Hubbie, D.: Endocrine System in Blood Disorders, The Lancet, 125, 113, 1933.
16. Jaffe, R. H.: Agranulocytic symptom-complex associated with Hodgkins lymphogranuloma., Munchen. Med. Wchnschr., 73:2012, 1926.
17. Jaffe, R. H.: Bone marrow in agranulocytosis (pernicious leukopenia), Arch. Path., 16:611, 1933.
18. Beck, R. C.: Benign and malignant neutropenia. Present status of knowledge of this condition with report of four cases, Arch. Int. Med., 52:239, 1933.

THE RIGHT SIDE OF THE HEART IN PULMONARY DISEASES*

LEONARD HART, M. D.
MERIDIAN, MISS.

In discussing this subject, I am aware that there are changes which occur within the heart secondary to other lesions, that cause pathology in the right side of the heart, but I am limiting my remarks to right heart pathology secondary to pulmonary diseases alone.

Cardiovascular disease, which is secondary to pulmonary pathology, has received but little attention, not considering the heart in acute conditions like pneumonia, where the pathology is of an acute nature, but those cases of long standing and subacute conditions that gradually increase their lung pathology and, secondarily, demand their toll from the heart. The involvement of the so-called lesser circulation, that is the right ventricle, pulmonary artery and vein, and their relation to lung disease, is little understood.

There are a number of diseases which affect the pulmonary circulation to a greater or less extent, with more or less involvement, varying all the way from slight dyspnea and cyanosis or exertion to the so called "Black Heart Ayerza", these patients either dying of their primary pulmonary disease or from their first or second cardiac failure.

In many of these patients you will find a hypertrophy of the right ventricle, also sclerotic changes in the larger vessels. But, as C. C. Mayer of Chicago states, this still remains an interesting study as to the physiological and pathological mechanism that brings it about.

The diseases of the lungs which are most commonly productive of right cardiac disease are: bronchial asthma, emphysema, chronic bronchitis, pulmonary tuberculosis of the fibroid type, bronchiectasis, silicosis, and pneumoconiosis, rarely new growth and pressure exerted by growths in mediastinum. We have all had experience with heart failure coming on in old chronic bronchitis and asthmatics. Just why this occurs is often very speculative, as to whether it is produced by some toxic substances liberated by the primary lung condition or purely from a mechanical effect.

The symptoms of heart failure vary as to whether the condition is acute, subacute, or progressive. Since going into all these conditions would make a lengthy paper, I will only consider, briefly, the progressive type, as this is the one which is most likely to catch us unawares. The symptoms vary from only a slight cyanosis and dyspnea with occasional attacks of palpitation to the so called black heart of Ayerza.

The symptoms of the primary lung condition can easily overshadow those of a beginning right heart failure, making it very difficult to

*Read before the Section on Medicine at the Sixty-eighth Annual Session of the Mississippi State Medical Association, Biloxi, May 14, 1935.

distinguish the early cardiac involvement. But as time goes on the cyanosis increases, the dyspnea becomes pronounced, even present on very slight exertion, attacks of palpitation increase with appearance of edema around the ankles. As the heart pathology increases, of course, passive congestion of all the viscera takes place with the associated symptoms particular to the organ involved.

From a standpoint of diagnosis, the history of the patient's primary pulmonary pathology is important. The fact that a patient with a slow progressive pulmonary disease, that may or may not show periods of remission, associated with dyspnea on exertion, spells of palpitation and cyanosis of any degree, should put us immediately on our guard, and direct our attention to the heart.

At the beginning the physical signs may be very meager: the heart borders are hard to make out, the tones are weak and the murmurs are seldom heard. One sometimes hears a systolic murmur, however, over the ensiform cartilage. There is, at first, very little change in the rhythm, maybe only an occasional extrasystole, provided only the ventricle is involved. But if the auricle becomes involved also, you will have various sorts of arrhythmia. As the pathology advances, one can palpate the liver and spleen. Edema and ascites make their appearance. Roentgenograms will show in an advanced case right-sided hypertrophy. Electrocardiogram shows a pronounced right axis deviation which is of considerable importance according to Maher. Personally, I have had no experience with electrocardiograms.

One must differentiate right heart pathology and lung pathology from congenital heart disease, mitral stenosis, cyanosis due to drug poisoning and cyanosis due to polycythemia. The prognosis of right heart disease and lung pathology offers, as a rule, serious prognosis. The patient may recover compensation after several attacks of heart failure, but as the primary pathology in the lungs is still acting he will experience renewed attacks of heart failure until the heart becomes unable to recompensate.

TREATMENT

The most important factor in the treatment is prophylactic measures. This refers, particularly, to bronchial asthma, and emphysema which is itself often a sequla of asthma. With the various tests that are used now to determine the sensibility of people to the various proteins and foods, etc., and with the methods of desensitizing these people, asthma, in a number of cases, is not only being prevented but is also being cured in some cases. Our modern methods of preventing tuberculosis have lessened the number of cases of tuberculosis, and the sanitary methods of mining and manufacturing have lessened the number of cases of other chronic inflammatory processes that cause sclerotic conditions in the lungs with their secondary heart involvement.

The general methods of treatment, which do not differ, particularly, from treatment of congestive heart failure from other causes, include general rest, by which I mean mental as well as physical, properly ventilated room, light bland diet, and proper elimination.

As to drugs, I would put opium at the top of the list. In the early failures digitalis acts well, but with subsequent decompensations the heart responds less and less to the drug, so that the drug does not relieve failure or minimize the patient's discomfort. Opium alone becomes the only anchor sheet for relief. Of course, in acute heart failure or in those in whom the symptoms come on suddenly, venesection has saved many lives. Atropine in large doses, combined with morphine, has also helped in some of my cases where sudden edema of the lungs developed but, if possible, I would resort to venesection first.

The treatment is very unsatisfactory. Although you may clear up a few attacks of heart failure in the patient with rest in bed, opium and digitalis, combined in some cases with repeated small intravenous injections of hypertonic dextrose solution in very acute case of heart failure, each subsequent attack is attended by greater difficulties and increasing complications so that relief becomes very difficult to obtain.

DISCUSSION

Dr. W. H. Frizell (Brookhaven): When Dr. Hart asked me to discuss this condition, the right

heart in pneumonia as announced by Dr. LeBaron, Dr. Hart then sent the copy of his paper to me telling me of the change of his subject. So often a man will have to change the subject to get in line with his own thought. Dr. Hart for many years was a member of the leading authorities on heart disease in Mississippi. He has studied this thing more than any one man, I might say, in our Association. He has been a student all the way along, and has had quite a bit of experience both in his own practice and that referred to him.

We all know that we have these conditions coming on in acute pneumonic conditions, and also in chronic conditions. He spoke of the use of digitalis, and that is about the only feature of it on which I shall have anything to say, with the possible exception of one other thing. I wish to admonish some of you that if you think you give digitalis in dram doses indiscriminately, in some of those cases you may have sincere cause for regret. You must remember that all the sons of Adam have idiosyncracies to something, and now and then we find a person who is peculiarly sensitive to digitalis. And I wish to impress on you further here that Bastedo in his work will admonish you that you should be wary in giving drugs in a pathological condition. Remember this, that the dose of a drug is not to be measured always when taken into or put into an animal where there is no pathological condition; that the dose in a given pathological condition can be given sometimes with much larger doses than you would in a non-pathological condition. Remember that you can not conscientiously judge the dose of medicine when put in a frog's leg or given to some animal, or given to a person. Give him a pathological condition and he will no doubt require more of the drug, yet there are conditions where we must not increase the dose. If we do we must do it cautiously. There is the condition of heart block. I might say, that I know I saved a man's life not many weeks ago, a man 55 who had had nicotine gangrene. He had been a sick man before that. This man had influenza, he had an acute influenza condition of the lungs, which you know is different from a lobar pneumonia. He had an abscess, but before that he had an edematous condition of the lung, he just couldn't live. Well, one dose, or 2 c.c. of digitalis shot into that man revived him enough where 5 gr. doses every four hours of caffein sodium benzoate given to that man restored him after he had climbed the top of the mountain. Digitalis will bring them back, but be cautious if you do not know the patient. I will admit we must give heroic doses at times; do not give yourself any cause for regret.

Dr. Joe E. Green (Laurel): Dr. Hart was good enough to send me a copy of his paper. I do not know why the program committee put me down to discuss it, I regard Hart as one of our best chest men. You probably do not recognize his ability. I think he has given us a paper that furnishes food for thought. When you come to dealing with the heart, I cannot do like Hart, separate the sides of the heart, I just have to take the whole heart. I have no discussion to make of this paper except this, that I want to thank you for having it. I think we are on the heart just like other things, we still do not know anything too much about it. Not a year ago I happened to be sick myself, and they said I had only 24 hours to live, I think they were telling the truth, but there was nothing to worry about, you have to live until you die any way, and they gave it out all through the country, through weddings and things of that sort, and my doctor worked on me for weeks, and he finally said "there isn't a durn thing the matter with your heart that I can find." All I can say is when it goes bad on you lie down and stay there until it gets well, and everything is fine.

Dr. Hart (closing): I want to thank the gentlemen for discussing the paper. I sent a copy of my paper to Dr. Frizell at Brookhaven and the other I evidently sent to the wrong man!

LIPIODOL AND SOME OF ITS USES IN SURGERY*

OSCAR J. BIENVENU, M. D.
Opelousas, La.

Lipiodol, as the name implies, is a combination of iodine and oil. Since this paper deals specifically with the use of lipiodol (Lafaye), it is fitting that I should mention that there are many other iodized oils on the market. I do not wish to discredit any of them as I have not given them a trial in the treatment of the conditions which I will mention later.

To be more explicit, lipiodol (Lafaye) is poppy oil containing 40 per cent iodine. It is amber in color and is non-irritant to the skin, mucous membranes and deeper tissues It is opaque to the roentgen ray and it can be injected into the body cavities without causing pain or discomfort. It has been proven that months and in some cases even years pass, before all the iodine has been

*Read before the Louisiana State Medical Society, New Orleans, April 29-May 1, 1935.

absorbed, which accounts for no cases of iodism following its use. Lipiodol is not only non-irritating but actually relieves pain when injected into the deeper tissues, around nerve trunks and nerve endings. It is an antiseptic and possesses powerful anti-bactericidal properties.

Poppy oil has long been known. It was described by Hippocrates some 400 years before the birth of Christ. In those days as now, poppy oil was not supposed to have narcotic properties, even though it is a part of papaver somniferum or opium poppy. Yet we do know that this oil combined with 40 per cent iodine is non-irritant and not painful when injected subcutaneously or into the deeper tissues. Smaller quantities of iodine in combination with other oils have proven to be irritating to mucous membranes or when injected into the tissues.

Iodine had its beginning in 1812 when discovered by Courtois, a Parisian manufacturer of soda. It was first employed as a medicine in 1819 by Coindet of Geneva. Since that time it has been found that iodine will penetrate body tissues. Iodine has been demonstrated in the urine of patients whose skin had been painted with the tincture. In the treatment of syphilis, especially the tertiary stage, the importance of iodine has long been known. Due to its liquifying qualities iodine has been used in pericarditis and bronchitis. Iodine is a local irritant and a germicide. As an antiseptic Goebel in 1906 found that a 1-1000 solution killed staphylococci after one minute exposure. Hailer noted that the same organisms were killed by a 1-8000 solution after two minutes. In 1911 Turner and Catto found that a 3 per cent solution of iodine would sterilize the skin surface when applied. Booee in 1911 stated that 50 per cent of the tincture (representing 3 per cent of iodine) was required for complete sterilization. Iodine was recommended by Woodbury in 1912 to sterilize the surgeons hands, instruments, sutures and dressings. Painting of wounds and skin surfaces has long been practiced for the purpose of either preventing infection or to destroy any pus producing organisms already present. Going over this little history one can easily see that a combination of oil (poppy) and as much as 40 per cent iodine makes an ideal preparation for treating infections and especially when it can be injected without causing pain.

Iodized oils have been known and used for many years. In a paper by Dr. Jacques Forestier, delivered before the "Federation des Sociétés des sciences médicales d'Algéree" he states "that in 1848 Marchal (Calvi), Personne (Paris) and Deschamps (Avallon), succeeded in combining iodine with vegetable oils, but it was not until 1901 that Guerbet and Lafaye presented the first iodized oil known as Lipiodol."

In 1908 Prof. Sicard first noted the opacity produced by lipiodol when exposed to the roentgen ray. Only in 1921 did he and Dr. Forestier perfect this new method for radiologic use. While working in this field, it was noted that certain patients who had been injected with lipiodol began to show marked physical improvement. That was the beginning of much experimentation with iodized oil as a therapeutic agent.

As such, lipiodol has been successfully used in the treatment of some cases of bronchial asthma. It is being used in the treatment of acute and chronic bronchitis. As an injection very pleasing results have been had in the treatment of sciatica, cervicobrachial and intercostal neuritis, chronic arthritis. In painful amputation stumps the injection of lipiodol, directly into the painful area, has been most gratfying in 80 per cent of these cases.

I wish to bring to your attention the cases in which I have used lipiodol therapeutically and to save time, will make this as briefly as possible.

CASE REPORT

Case 1. M. H. In December, 1927 this patient suffered an attack of pneumonia which was followed by empyema. In January, 1928 a thoracotomy was performed and through drainage tubes the cavity was irrigated 2 or 3 times daily with

Carrel-Dakin solution. After several months the sinus was allowed to close but later had to be reopened and irrigated. This continued until November, 1928, at which time the cavity was not yet sterile but having read an article about lipiodol I decided to give it a trial. I injected 8 ounces into the cavity and two days later removed the tubes. The sinus healed promptly, all symptoms rapidly disappeared, the patient began to gain weight and strength. Today the patient is in perfect health.

Case 2. L. R. 1929. This patient gave a history of having had pneumonia 3 years before I saw him. A thoracotomy had been performed at that time, the sinus had been allowed to close several times but always had to be reopened. After practically three years of drainage, I injected 3 ounces of lipiodol, and removed the tubes two days later. The sinus closed. Immediate improvement was noted and at this time the patient is apparently in perfect health.

Case 3. Child kicked on the forehead by a mule. A piece of the frontal bone about 1½ inch long and ½ inch wide was removed. The frontal lobe of the brain was exposed. Infection followed. After drainage for 3 weeks, lipiodol was injected. The wound healed and recovery promptly followed.

Case 4. H. B. Abscess or empyema of the antrum of Highmore following tooth extration. This case had, for two weeks been receiving thorough and frequent irrigations with absolutely no relief. I injected lipiodol by perforating the cavity through the nose. Pain was relieved almost instantly. Within 24 hours, the swelling of the cheek was markedly diminished. There was no tenderness, no fever, no swelling of the cheek, no pain and no foul odor in 30 hours after injection. There has been no recurrence.

Case 5. H. D. 22 years old. Osteomyelitis of the shaft of the femur of four years duration, with a history of three operations. There was a sinus at the junction of the middle and lower third of the thigh on the anterior surface, lipiodol was injected through a rubber catheter. Pain was relieved within 48 hours. At the end of two weeks, lipiodol was again injected. One week later, there was no pain, no swelling, no tenderness and the sinus closed.

Case 6. J. D. Osteomyelitis of the tibia in a child 10 years of age, of 2 years duration, giving a history of five curettages. Lipiodol was injected through a sinus near the head of the tibia. Pain, swelling, tenderness disappeared within one week. The sinus closed. There was no recurrence in 3 years.

Case 7. Mrs. C. I had been informed of this case of chronic osteomyelitis of the shaft of the femur in which lipiodol was injected with apparently no good results. After questioning the doctor in charge of the case, I learned that there was a sinus which opened in the lower third of the thigh just above the popliteal space, and that the patient was not put to bed after injection. It is only reasonable to believe that this was not a fair test of the use of lipiodol. This case should have been injected in bed and instructed to remain in a prone position just as long as possible, or some attempt should have been made to close the sinus after injection. It is absolutely necessary for the iodized oil to remain in contact with the infected tissue to affect a cure.

CONCLUSIONS

1. Lipiodol will prevent infection and does not produce abscess formation when injected, it being self-sterile.

2. It will retard further growth of infecting organisms already present.

3. It will kill micro-organisms which have caused infection.

4. The iodine content of the preparation does penetrate body tissue.

5. Lipiodol does not cause pain or irritation when applied to or injected into the body tissues.

6. It requires months and even years for the iodine to be completely absorbed.

7. There is a sufficiently powerful amount of iodine in lipiodol which, through its oily combination, remains in contact with infecting organisms long enough to cause their destruction.

DISCUSSION

Dr. William P. Bradburn, (New Orleans): I have been particularly interested in the report of the last few cases, particularly those of osteomyelitis. Personally, I have never used lipiodol in osteomyelitis, as he reported. I have used it in chest surgery following thoracotomy, with excellent results. The same has been obtained, however, by me, in the use of any of the other disinfecting agents following thoracotomy.

I have never used lipiodol in the quantities that have been suggested by the essayist in some cases. Eight ounces is a very considerable quantity, and there is no fear of using it, but sometimes the expense to the patient has to be considered.

As I said, I have not used lipiodol in cases of osteomyelitis, having used mixed paste instead, and I have gotten some good results. However, I will take great pleasure in trying it in a case of

chronic osteomyelitis I now have, after twenty years of a quiet condition, and I will be glad to tell him just exactly what I think of it. For the present we are very interested in hearing the reports, and we should at least give it a trial in some of our questionable problems.

As to the diagnostic side, we are familiar with that. So far as his paper limiting it to the therapeutic side, we agree with that, and he mentions the cases in treatment of the chest, and I can add a case of treatment of the liver, in which I used it. I would be very pleased in hearing also of further work in the osteomyelitis group.

Dr. Oscar J. Bienvenu, (Opelousas): I do not think there is anything more that I can add except that I certainly would appreciate hearing from Dr. Bradburn after he uses it in osteomyelitis. It has been successful, extremely so.

THE BACTERIOLOGY OF AND EXPERIMENTAL WORK IN FOCAL INFECTIONS*

GEORGE F. FASTING, M. D.†
NEW ORLEANS

The term "focal infection" does not lend itself to a ready and precise definition. As a pathological term it may be conceived as describing a small circumscribed infected tissue area, harboring any one of the many pathogenic germs, irrespective of their type, which during their life processes are able to exert deleterious action upon the invaded host. The term does not appear to have found favor among pathologists, but is employed somewhat extensively among clinicians and dentists in the United States.

As commonly used "focal infection" suggests the existence of a possible relationship between a disease manifestation in one part of an organism to a small circumscribed area infected with bacteria in a remote part of the same organism. Such infections need not and very often do not give evidence of a pathologic state in the patient nor do they reveal such to the examining physician.

The clinical recognition of this possible mechanism in disease production, and the beneficial results that so frequently follow the removal of suspected tissues, such as tonsils and teeth, have led to rather extensive application of extirpational procedures in medical and dental practice. This is surprising when contrasted with the insignificant attention given the topic in textbooks of clinical medicine, pathology and bacteriology.

The bacteriological and pathological research necessary to elucidate the phenomena associated with foci of infection, has not had the attention of many workers, although in most pathological laboratories, isolation of bacteria from "focal infection" tissues is constantly carried on. Such proper research is beset with difficulties inherent in all biological work. Animals susceptible to various organisms pathogenic for man are relatively few. The activities and reactions of bacteria found in "focal infection" studies and seemingly responsible for chronic slowly debilitating states are rarely met with spontaneously in animals. Certain tissues, like the tonsils and nasopharynx, present on their surfaces a variable yet supposedly "normal" bacterial flora which in most individuals give rise to no disturbances. Still, similar organisms on the surface of these same structures are in certain individuals held responsible for disease. Explanations for this discrepancy are sometimes blatantly offered but the laws governing acquisition of invasive property or the development of varied specific tissue affinities are certainly not understood.

As regards the biochemistry of bacterial poisons and their pharmaco-dynamic actions—even such elaborated by rather stable bacterial species—next to nothing is known. Still, very suggestive work of a few investigators along these lines several years ago has not as yet received sufficient recognition.[1, 2, 3 4]

Rosenow[5] and his followers[6, 7] have made interesting contributions to our knowledge of focal infection by their studies of streptoccci of the non-hemolytic and viridans types. Fortunate circumstances in the finding of suitable experimental animals, emphasis on special bacteriologic technic and the cooperation of sev-

---

*Read before the Orleans Parish Medical Society March 25, 1935

†From the Departments of Pathology and Bacteriology of School of Medicine, Louisiana State University Medical Center and the Charity Hospital of Louisiana at New Orleans.

eral medical specialists have made their results very significant. However, it is distinctly erroneous to attribute to Rosenow and his followers the idea that streptococci are causal agents in all "focal infections".

It is unfortunate that suitable procedures have not been developed to help clarify the role of staphylococci, B. coli, Neisseria catarrhalis and the fuso-spirochetal group, for clinical results lend strong suspicion of their involvement in the phenomena of "elective localization".

The clinician interested in undertaking similar work would do well to note in the preface of Dr. R. L. Haden's book, Dental Infection and Systemic Disease, the large and varied staffs recommended as necessary properly to carry on such investigations.

The structures that commonly come to mind in "focal infection" are: the nasopharynx, the accessory nasal sinuses, the tonsils, the teeth, the gallbladder, the appendix, the prostate, the uterine cervix and occasionally the colon. Many of these structures have a natural mixed surface flora, with undoubted frequent invasion of the tissue proper. The effect of symbiotic actions of micro-organisms on these structures is little known, and there is little experimental work to explain their action in the human body.

Bacteriological studies indicates that the most frequent, responsible organisms in "focal Infection" are the streptococci, the staphylococci and the members of the colon group. In the oral cavity members of the fuso-spirochetal group are undoubtedly frequently incriminated even though we do not know much regarding their systemic effects. Partial tension of oxygen in the media used, and the ability of the experimental animal to suppress many co-existing micro-organisms that may be present in a removed focus of infection, are the prominent factors responsible for success in this type of work. The customary bacteriological procedures of extensive isolations by plate methods, have ignored partial tension of oxygen and relative ease of dissociation of most bacterial forms.

Corroboration of, "elective localization" of streptococci in the United States is greater than is generally supposed. Since 1930 similar work has been undertaken and results verified by European investigators: Luzena[8] in Rome on cholecystitis and iritis; Bernhardt[9] in Berlin on cholecystitis and arthritis; Buttiax and Sevin[10] in Lille, France, on ulcerative colitis; and Rambaugh[11] in Paris on phychopathic patients.

Clinical cases often present suggestive evidence of foci that are inadvisable to remove, i. e., the prostate and the gall-bladder; in such cases bacteriological statistics may help in surmising the bacterial flora in such foci, but medical practice has to fall back on "constitutional factors of resistance", and a therapy of the "trial and error" kind, for want of better knowledge of immunity and immunity reactions.

In the course of the author's study and practice it has been possible to verify the peculiar "elective localization" in the rabbit with cultures obtained from a variety of foci in man. The following is an illustrative case:

Case 1—White female, aged 26 years, unmarried. *Complaints*—Chronic nasal sinusitis for seven years, neuritis of left arm for two years. Vomiting immediately after breakfast and supper for the last six months. *Previous History*:—Tonsillectomy and scarlatina in childhood. *Pathology*:—Hyperplasia of nasal mucous membrane; periapical infection of three devitalized teeth and one suspicious carious tooth.

On January 4, 1935, two teeth were removed, cultured by Rosenow's procedure and the growth (non-hemolytic streptococcus) injected intravenously into four rabbits. One animal died in forty-eight hours; it presented a bilateral pneumonitis. The others were chloroformed seventy-two hours after injection. One of these animals presented a hemorrhagic lesions of the right tibial nerve, in addition to two purulent joints. A second showed a tricuspid vegetation. The extractions were followed in the patient by exacerbation of pain in the left arm, and a similar neuritic pain in the right arm.

On January 25, 1935, two other devitalized molars were removed, cultured and suspension of the recovered non-hemolytic streptococcus injected intravenously into four rabbits. Two of the rabbits died within twenty-four hours with evidence of sepsis, and gross hemorrhagic lesions in three sciatic and four tibial nerves. One rabbit was chloroformed thirty-six hours after injection, and showed

hemorrhage in one tibial nerve. The fourth rabbit developed spasticity of the forelegs twenty-four hours after injection. On the fourth day recovery had taken place and no gross lesion could be demonstrated at autopsy.

One month later subcultures from three rabbits that had revealed the extensive nerve involvement were injected intravenously into four rabbits. Three animals lived eleven days, showing no symptomatic disturbances nor pathologic lesions at autopsy. The fourth rabbit died after forty-eight hours with extensive liver degeneration.

BIBLIOGRAPHY

1. Koessler, K. K., Hanke, M. T.: Studies on proteinogenous amines. J. Biol. Chem., 16:21, 1924.

2. Koessler, K. K., Hanke, M. T., and Sheppard M. S.: Production of histamine, tyramine, bronchiospastic and arteriospatic substances in blood broth by pure cultures of microorganisms. J. Infect. Dis., 43:363-377, 1928.

3. Koessler, K. K., Lewis, J. H., and Walker, J. A.: Pharmacodynamic actions of bacterial poisons. Arch. Int. Med., 39-163-213, 1927.

4. Johnston, A. R.: The toxic effects of amines. J. Infect. Dis., 42:473-484, 1928.

5. Rosenow, E. C.: Focal infection and elective localization of streptococci in the causation of disease. Acta Rheumatologica, Number 3.

6. Cook, T. J.: Focal production of ulcerative colitis. J. Am. Dent. Assn., 18:2290-2301, 1931.

7. Rosenow, E. C., and Jensen, L. B.: Elective localization and cataphoretic potential of streptococci. Proc. Soc. Exper. Biol. and Med., 37:442-444, 1930.

8. Lusena, M.: Studied esperienze Sulle Infesioni Focali. Policlinico (Rome) 40, 1933.

9. Bernhardt, H.: Zur Frage der Fokal infektion und der "elektiven Lokalization". Zeit-Klin. Med., 117:159-174, 1931.

10. Butteaux and Sevin: Sur l'Etiologie des Colites Ulcereuses. Ann. Inst. Past., 47:173, 1931.

11. Gebier-Rambaugh, Q.: Role de l'infektion focale dans certaines Psychoses. Press Med. (Paris), 81. Oct. 10th, 1931.

NEW ORLEANS
Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

Courtland P. Gray, M. D., *Ex-Officio*
For one year: John A. Lanford, M. D.
For two years: S. M. Blackshear, M. D.
Chaille Jamison, M. D.
For three years: W. H. Seemann, M. D., Chairman.
Maurice J. Gelpi, M. D., Secretary

EDITORIAL STAFF

John H. Musser, M. D.—*Editor-in-Chief*
Leon S. Lippincott, M. D.—*Editor*
Willard R. Wirth, M. D.—*Editor*
H. B. Alsobrook, M. D.—*Associate Editor*
J. W. Dicks, M. D.—*Associate Editor*
D. W. Jones, M. D.—*Associate Editor*

COLLABORATORS—COUNCILORS

For Louisiana	*For Mississippi*
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
Daniel N. Silverman, M. D.	L. L. Minor, M. D.
C. C. DeGravelles, M. D.	R. B. Caldwell, M. D.
M. D. Hargrove, M. D.	Thomas J. Brown, M. D.
J. B. Vaughan, M. D.	Willie H. Watson, M. D.
C. A. Lorio, M. D.	H. Lowry Rush, M. D.
C. A. Martin, M. D.	Jos. E. Green, M. D.
King Rand, M. D.	W. H. Frizell, M. D.
	D. J. Williams, M. D.

Paul T. Talbot, M. D.—*General Manager*

1430 Tulane Avenue

SUBSCRIPTION TERMS: $3.00 *per year in advance, postage paid, for the United States;* $3.50 *per year for all foreign countries belonging to the Postal Union.*

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL *does not hold itself responsible for statements made by any contributor.*

Manuscripts should be addressed to the Editor, 1430 *Tulane Avenue, New Orleans, La.*

PREVENTION OF MALARIA

It seems ridiculous to keep harping on the same subject but certainly there seems to be a need to do this when it is found that malaria is as prevalent as it is in Louisiana at the present time. In the last quarterly bulletin of the Louisiana State Board of Health, Dr. O'Hara reported that for the second quarter of 1935 there were listed 360 cases of malaria, more than any other disease except syphilis. During the summer and fall months malaria was evidently more prevalent than it was in the spring. Thus, in August in one week there were reported 228 cases of this disease. The next week 223 were listed. The last week of August there were 265 cases. September the incidence of the disease stayed persistently high. The figures published in this number of the Journal showed that malaria is leading all of the reportable diseases. While there are not as many cases as reported in August, nevertheless this is the most frequently reported of all diseases. Physicians have seen these cases in large numbers in their private practice and in Charity Hospital there are also patients with malaria in large numbers.

It is very possible that innumerable cases are not being reported; they are not being seen as they resort to self-medication. This great prevalence of malaria is deplorable as there is no reason why there should not be adequate control. If the patients are treated properly they should not for long be foci for the dissemination to the plasmodia. Extensive efforts of malaria control are prohibitive in cost but if each and every physician insists upon the patient following out the standard treatment of the disease, there should and will be a very material diminution in the number of people invalided by this serious and some times fatal condition.

A MEETING OF IMPORTANCE

The National Tuberculosis Association will hold its annual meeting in New Orleans the week of April 20th immediately following the meeting of the Louisiana State Medical Association in Lake Charles. A preliminary open session will be held Wednesday night, and the next morning the regular official program will commence. The annual meeting of this great national organization will be well worth while attending. It promises to be one of their really best meetings.

The general plan of the meeting provides for four sections, two of which are clinical and pathological, and the other two are sociologic

and administrative. The medical man will be interested in the first two sections. They have alternate sessions so that their meetings do not conflict. For these sectional meetings outstanding clinicians in the field of phthisiology will present results of their studies and observations of patients and of laboratory procedures which will enlighten and instruct even those who keep well abreast of what is being done in the field of tuberculosis and lung disease. In addition to the daily sessions in the evening there are held x-ray conferences in which plates are demonstrated to small groups and where questionable or interesting films may be brought by physicians for discussion and interpretation. The organization also has general evening meetings in which some of the broader aspects of tuberculosis are discussed. Thus it is planned to have a symposium on tuberculosis as a racial and national problem at one of the evening sessions. In addition to the scientific program there will also be special arrangements for social activities for those in attendance as well as those they bring with them.

Any and every physician is cordially invited to attend this meeting. There is no registration fee and there is no requirement of membership in the organization to register. It is hoped that there will be on the program a few papers from Louisiana doctors and from the physicians of the South. Any physician wishing to appear on the program may address Dr. W. B. Sopher, New Haven, Conn., who has charge of the clinical portion of the program, or Dr. C. A. Doan, Ohio State University, Columbus, Ohio, who is in charge of the program of the pathologic section.

THE EFFECTS OF CHOLECYSTECTOMY

Cholecystectomy, when stones are present in the gallbladder and sometimes when the gallbladder is the seat of rather extensive noncalculus inflammatory changes, is an extraordinarily successful operation. In about 85 per cent of cases in which stones are present the results are all that a surgeon hopes for and anticipates. The results in chronic inflammatory disease are not, however, as fortunate. Weir and Snell* have published an interesting paper which attempts successfully to explain the symptoms that sometimes remain after a gallbladder has been excised. Aside from those instances that are conditioned upon faulty diagnosis there remains a group of cases which may be explained by residues of cholecystic disease continuing to disturb the patient; strictures of the common bile duct may develop and in a certain small group there occurs postcholecystectomy colic which is dependent upon a variety of organic causes and also to visceromotor disturbances.

Fundamentally and basically the persistence of symptoms after removal of the gallbladder would be obviated in the great percentage of cases if the diagnostician selects carefully the patient who is to be operated upon. Merely because a patient has had jaundice is no reason why he should be submitted to a laparotomy, indefinite dyspepsia is no criterion for gallbladder surgery, and the accidental finding of a gallbladder which fails to visualize or which contains stones is again a poor reason for suggesting surgery. The complications that occur after any abdominal operation are contingencies which must be faced when operation is decided upon and the special complications must be given due thought. Residues of cholecystic disease may occur in a few individuals because cholecystic disease itself is usually associated with hepatic disease or even with chronic pancreatitis. These hepatic lesions after gallbladder removal in the majority of instances, of course become inactive but as the authors say, resolution to complete healing can hardly be expected invariably. Stricture of the common bile duct is rare, nevertheless it does happen and may result in post-operative syndrome of jaundice without pain, attacks of colic, persistent fistula, and for months after operation more or less periodic attacks of jaundice. Ultimately the unfortunate individual who has this complication becomes permanently jaundiced and severe injury to the liver takes place. Consequently if the symptoms sketched above appear, reconstructive operations are indicated.

The patients who have colic after the re-

moval of the gallbladder afford considerable worry to the surgeon and to the internist. Their treatment is difficult and the result is problematical. The colic may be due to incomplete cholecystectomy, to stones in the common duct or to cholangeitis, to stricture or it may be that if operation is repeated there is found no obvious gross disease of the liver or bile duct. The explanation of colic for which there cannot be discovered any exciting pathologic cause may be assumed to be due to certain factors, according to certain well substantiated theories advanced by Ivy and his coworkers. It is assumed that there is spasm of the sphincter of Oddi as a result of abnormal sympathetic or parasympathetic innervation. This over-distends the common duct and causes pain. Likewise it will produce nausea and vomiting or other less clear-cut digestive expressions. The treatment of these patients is difficult. They usually are neurotic and often opiates are necessary to alleviate the suffering. The authors suggest that if transduodenal biliary drainage, a persistent employment of antispasmodics, sedatives and alkalis, together with sodium phosphate in the morning, is not sufficient to control the symptoms that paravertebral nerve block or even section of the sphlanchnic nerves, which has been rarely used, may ultimately have to be practiced. Under any consideration biliary dyskinesia, the term applied to the syndrome of biliary colic not due to organic disease, is a disturbing and discomforting development after cholecystectomy. It may be present before operation, hence the value of very complete study of the patient prior to submitting him to radical gallbladder surgery.

*Weir, J. F., and Snell, A. M.: Symptoms That Persist after Cholecystectomy: Their Nature and Probable Significance, Jour. Am. Med. Assn., 105:1093, 1935.

HOSPITAL STAFF TRANSACTIONS

TOURO INFIRMARY

The regular monthly meeting of the Touro Infirmary Staff was held Wednesday, October 9, 1935 at 8 P. M. In the absence of the Chairman, Dr. Henry Blum, Dr. Walter Levy presided.

Instituting an innovation in the staff meetings, Dr. John Lanford conducted a clinical pathological conference for one hour. Two cases were so presented. One, a case of cholelithiasis in a 77 year old male and the other a severe streptococcal laryngitis and bronchial pneumonia in a 1 year old infant. Clinical aspects of these cases were presented and discussed, following which the pathological specimens were shown.

As next order of business, Dr. Levy presented the new Superintendent, Dr. A. J. Hockett. Dr. Hockett spoke briefly on the matter of completing case records and means of communication with the administration.

The record of an unusual case of lymphatic leukemia was presented by Dr. B. R. Heninger. This was discussed by Drs. Lanford, Jos. Cohen, Lemann, Eustis, Kearney, Tietelbaum and Matas.

Dr. Sydney Jacobs showed the staff a patient with an unusual type and degree of obesity. Drs. Lemann, Matas and Holbrook discussed this case.

Willard R. Wirth M. D.

JACKSON INFIRMARY STAFF MEETING

The first staff meeting of the Jackson Infirmary, since the summer suspension of meetings, was held September 24, 1935, with a buffet supper being served before the regular meeting began. Thirty-three members and guests were present and enjoyed the supper.

1. Case report by Dr. Rehfeldt. A patient who had an onset of headaches which had increased in severity, frequency and duration over a long period of time. Roentgenograms showed the unusual finding of nine cervical vertebrae, the first one being within the skull.

2. Dr. Wilson discussed heart disease during pregnancy. It has been shown by recent work by men in the New England States, where there are a great deal more heart disorders than are found in this section of the country, that if a very rigid line of care is followed with these patients the mortality can be greatly reduced as shown by the statistics of 18 per cent mortality against 4 per cent mortality when the proper care was observed.

3. Dr. Barksdale, after the assembly had bowed its heads in memory of its departed member, Dr. Julius Crisler, said a few words about the character, personality and ability of this remarkable man.

4. Election of Officers: Chief of staff, Dr. Ewing Gordin; Secretary, Dr. George Owen.

Drs. Berman, Magee, Flint and Applewhite were present as guests. Dr. McCarthy offered their

names as members of the staff. These will be referred to the membership committee and are to be passed on at the next meeting by the staff. Dr. Edward Holmes of Winona was also a guest.

Drs. Womack, Adkins and Barksdale were named as a committee to draw up appropriate resolutions for the staff in regard to the death of Dr. Julius Crisler.

The newly elected Chief of Staff took the chair and entertained a motion for adjournment.

Harvey F. Garrison, Jr.

MISSISSIPPI BAPTIST HOSPITAL STAFF MEETING

The regular meeting was held September 17, 1935.

Dr. Van Dyke Hagaman reported a case of toxic amblyopia due to tobacco, which recovered after treatment with intravenous nitroscleran.

Dr. Hardie Hays discussed a case of fever of undetermined origin.

These case reports were very interesting and a general discussion of the cases made them even more valuable to the staff.

Dr. Frank Hagaman presented a study of statistics on the experiences of the hospital staff in dealing with peritonitis as a complication of appendicitis. This study showed that the results at this hospital compared very favorably with the results obtained in hospitals in other sections of the country.

Drs. George Owen, Frank Werkheiser and Banks were elected to full membership of the staff.

Harvey F. Garrison, Jr.

VICKSBURG SANITARIUM STAFF MEETING

A regular monthly meeting of the staff of the Vicksburg Sanitarium was held October 10 with twelve members of the staff and three guests present. After a supper served at 6:30 P. M., the program included the following:

Reports from the records department and analysis of the work of the hospital.

Report of vital statistics from the Warren County Health Department, Dr. F. Michael Smith, director.

Special Case Reports:

1. Carcinoma of the Cervix Uteri.—Dr. G. M. Street.
   Discussed by Drs. L. J. Clark, J. A. K. Birchett, Jr., and F. M. Smith.
2. Carcinoma of the Descending Colon—Resection.—Dr. J. A. K. Birchett, Jr.
   Discussed by Dr. G. C. Jarratt.
3. Tularemia.—Dr. G. C. Jarratt
   Discussed by Drs. W. E. Johnston, G. M. Street, L. J. Clark, J. A. K. Birchett, Jr., and L. S. Lippincott.

Special Report: The Recent Meeting of the American Academy of Ophthalmology and Oto-Laryngology at Cincinnati.—Dr. C. J. Edwards.

Demonstration of selected radiographic studies: osteomyelitis of finger (2 cases); depressed fracture of skull (2 cases); aortic dilatation.

Three minute reports of the literature of the month:

Dr. L. S. Lippincott.—Deaths Following Fever Therapy.

Dr. J. A. K. Birchett, Jr.—New Technic of Closure of Fecal Fistulae.

Dr. L. J. Clark.—Relation of Diverticulitis and Carcinoma.

Dr. W. E. Johnston.—Volkmann's Ischemic Paralysis.

The next meeting of the staff will be held Monday, November 11.

Leon S. Lippincott
Secretary

VICKSBURG SANITARIUM STAFF MEETING
October 10, 1935

Abstract—Carcinoma of Descending Colon-Resection—Dr. J. A. K. Birchett, Jr.

White male, aged 70 years; admitted to Vicksburg Sanitarium August 27, 1935. Present Illness.—About three or four months ago noticed a lump in upper abdomen, not painful; did not feel sick; no trouble with bowels but was only slightly constipated which he had been all of life. Did not have intermittent diarrhea and constipation; no blood in stools; felt very well but thought he tired more readily the last two or three months than formerly but had been at work regularly. Past History.—No serious illness; had influenza in 1918. No history of any cardio-vascular, respiratory or digestive disturbance. Suffered with nocturia and occasionally had slight urinary frequency with burning from prostatic irritation. Did not use alcohol or tobacco in any form. Family History—No tuberculosis; no cancer. Physical Examination—Well developed and nourished white male. Although 70 years of age appeared to be 10 years younger. Not acutely ill. Temperature 98°F.; pulse 88; respiration 18; blood pressure 170/80. General examination revealed heart normal size, pulse regular, some arteriosclerosis, lungs normal. Palpable mass size of orange in left umbilical region of abdomen freely movable, not especially painful. Either a mass in descending colon or left kidney, probably not spleen. Prostate enlarged (2-plus), small amount residual urine, not infected. Had right inguinal hernia reducible and retainable by truss. Rectum, no mass palpable, no hemorrhoids. Clinical Laboratory.—Blood Wassermann, Kline and Young, Kahn, and Eagle flocculation tests, negative. Blood count: hemoglobin 97 per cent; color index 0.94, erythrocytes 5,230,000; reticulocytes 0.3 per cent, leukocytes 7,600, differen-

tial leukocyte count, small lymphocytes 14 per cent, large lymphocytes 5 per cent, monocytes 6 per cent, polymorph neutrophils, mature 43 per cent, band forms 27 per cent, eosinophils, 5 per cent; no malaria found. Blood chemistry; urea nitrogen 14.48 milligrams, creatinin 1.7 milligrams, sugar 95 milligrams. Urine: slightly cloudy, slightly acid, slightest possible trace albumin; few pus cells (1 plus); many fresh blood cells.

Roentgen-Ray Laboratory—Rectum and sigmoid colon fill well. There is a marked filling defect in distal descending colon with tendency to obstruction. On account of intense pain from barium enema no barium was forced by this area which is opposite a mass in abdomen. Impression—Carcinoma descending colon.

Impression.—A tentative diagnosis of growth in descending colon was made and patient was ordered in for roentgen-ray and fluoroscopic study of gastro-intestinal tract. This revealed a constricting deformity; an enema of opaque media confirmed the findings of opaque media given by mouth. After this finding it was not thought necessary to do cystoscopic study and injection of opaque media into the left renal pelvis for growth in that organ.

Procedure. The general condition of patient was such that exploratory operation could be done and if the mass was operable this would be attempted. The patient was quite willing to have surgical relief and presented himself for admission to Sanitarium August 29. After admission he was placed on non-residue diet as suggested by Rankin, lower bowel was kept clean by daily irrigation of saline. Petrol oil was given orally three times day. Blood chemistry taken was normal, roentgenogram of chest did not show any cardiac dilatation, aneurysm or abnormal lung pathology. September 4 we felt that his condition was satisfactory for surgical exploration of abdomen. The morning of operation calcium, gr. X, was given in vein to promote coagulation. After preliminary hypodermic of morphine, gr. 1/6, and atropine, gr. 1/150, and under ether anaesthesia abdomen was opened by a long left pararectus incision, the middle of which was placed over the center of the mass. The abdomen was opened without difficulty and was unusually free from adhesions, no evidence of glands in mesentery and liver showed no evidence of metastases. The mass was size of a large orange and was situated in the lower descending colon. It was firmly attached to the parietal peritoneum in the region of the iliac crest and at first was rather fixed but after division of the peritoneum by circular incision around the mass it was easily lifted into the wound. The descending colon was mobilized by division of peritoneal reflection along the lateral abdominal wall and the peritoneal bands and fasiculae were divided as far up as the splenic flexure allowing the colon to be turned well inward and away from the lumbar region. All vessels were clamped and ligated as they were isolated. The middle and left colic vessels were carefully safeguarded by keeping close to the freed loop of colon. After the loop of colon containing the mass was sufficiently freed to be brought into the wound of the mesentery opposite the mass, it was divided and all vessels carefully ligated being careful not to include the blood supply of the upper or lower limb of the proposed colostomy. The two limbs of the loop below the mass were then approximated at their antimesenteric border by continuous cat gut sutures and the loop of colon containing the mass was exteriorized and after the raw lumbar area was peritonealized and the opening in the mesentery was closed the abdominal wound was closed about the mass. Clamps were then placed across the normal colon above and below the mass.

Segment of colon containing mass was removed with cautery this leaving a double barrelled colostomy, the clamps to be left in for 72 hours or until the upper limb became distended, the colostomy later to be closed if it did not close itself after crushing the spur between the colostomy after the method of Rankin. Penrose drains were placed in lower end of wound to take care of serious drainage.

Progress.—Reacted from surgery without any severe reaction, pulse rate not increased at anytime over 110, drainage from wound free serosanguineous drainage. Glucose, 1,000 cc., in vein daily; necessary to catheterize several times because of bladder irritation and this was followed by prostatic irritation. Urotropin given three times daily with relief.

On third postoperative day drainage was removed, there was some discomfort in upper abdomen due to distention of proximal loop and clamp was removed with passage of large amount of gas and some fecal matter; that night had several large evacuations through colostomy.

On fifth postoperative day lower clamp sloughed away leaving viable healthy looking double barrelled colostomy. This was irrigated daily with saline to keep bowel open and clean. Condition improved steadily, taking selected diet; petroleum given to promote control of bowel movement; on several occasions they became too free and oil was discontinued.

On thirteenth postoperative day all abdominal sutures were removed and clamp was placed across spur between the two colostomy openings to crush the intervening tissue deflecting the fecal stream into the lower segment of colon. After three days this clamp cut through and as stoma was not quite large enough another area was clamped further

down on the spur. This cut through in 48 hours. This apparently gave a free opening into the lower colon as patient began to have bowel movement in normal way.

The colostomy opening is rapidly drawing in and closing especially after he was up in wheel chair and walked about room.

Patient was discharged on October 7, on twenty-eighth postoperative day feeling well but colostomy wound still draining. This is to be closed later if does not close itself.

Vicksburg Sanitarium Staff Meet .....

Abstract.—Tularemia—Dr. G. C. Jarratt.

White male, aged 9 years.

Chief Complaint—Fever, enlarged nodes in right groin.

Present Illness—Chill three weeks ago followed by fever for three days, as high as 102°F. in p. m. and normal in a. m. Then no fever for four days. Fever from 99 to 101°F. except for one night when it was 103°F.

About four weeks ago child pulled a "tick" from the skin just above right iliac crest. Glands of right groin became enlarged two weeks ago; incised by family physician four days ago and draining since. Two weeks ago skin at site of bite broke down and ulcer is now present. Past History—Not relevant. Physical Examination.—Well developed and nourished, not acutely ill. Spleen two fingers' breadth below costal margin. Liver two fingers' breadth below costal margin. Small punched out ulcer size of silver dime just about iliac crest on right side. One mass of nodes in right groin, size of English walnut. Skin in this region red and tender. Incised wound in center of mass with scant purulent drainage.

Clinical Laboratory—Urine not remarkable. Blood: hemoglobin 87 per cent; erythrocytes 3,780,000; leukocytes 8,200; lymphocytes 33 per cent, polmorphs. 66 per cent, eosinophils 1 per cent; no malaria found. Wassermann, Kahn, and Kline and Young tests negative. Agglutination tests for undulant fever negative. Agglutination tests for tularemia positive and confirmed by State Hygienic Laboratory.

Course And Treatment—Put to bed with hot wet boric acid solution dressings to right groin and zinc oxide dressing to ulcer. Two cc. of 1 per cent aqueous solution of mercurochrome was given intravenously, followed by severe chill. Mercurochrome repeated three days later with no chill. In hospital one week. For five days fever between 99°F. and 101°F. except following the chill. Fever normal for two days before discharge; ulcer healing and nodes in groin much reduced in size with less drainage. Discharged home with directions for rest in bed, regular diet, haliver oil globule twice daily and one lextron capsule three times daily.

Seen in out-patient department one week later. No fever since discharge, eating well, ulcer entirely healed. Glands very small with no drainage. Count, 4,950,000; hemoglobin 92 per cent.

Seen in out-patient department one week later. No fever. Appetite good; up and about house for past week. Glands size of peanut kernel, not tender, no drainage. Discharged from observation and allowed to return to school.

OSCAR ALLEN TUMOR CLINIC
CHARITY HOSPITAL
NEW ORLEANS

The scientific meeting of October was called by Dr. James T. Nix, Director. The essayist was Dr. Blaise Salatich who presented the following paper.

RADIUM THERAPY IN ORAL MALIGNANCY

Radium application in the treatment of malignant neoplasms of the oral cavity has been considered by many medical and dental clinicians in the past as a simple procedure. It is only when one has come in intimate and prolonged contact with this division of radium therapy that its importance and very often tedious execution is fully realized.

In the first place, too little consideration is given to the actual importance of oral malignancies. Few people realize the large number of lesions that appear in the mouth, some being mere benign growths, others the forerunners of cancer, as in the case of different forms of leukoplakia, or again, malignant neoplasms from their very inception.

Neglect is most often responsible for the advanced stages in which most oral cancers are seen by the clinician. If these cases would be seen in their incipiency, diagnosis of malignancy made by early biopsy, (since this is our only definite means of diagnosis) the results with radium would be much more successful. It is easy to understand that if radium is applied in the early stages of a malignant growth, the lesion is small and requires less radium, therefore less post irradiation reaction is produced. Since the oral cavity is made up very much of very delicate membranes and vital structures it will not tolerate severe traumatism and the milder treatments are distinctly advantageous.

In applying radium in the mouth we first must determine whether interstitial or surface application is indicated. The type of radium used is greatly determined by the location of the neoplasm. If the growth is on the palate or along the alveolar ridge where there is only a thin layer of periosteal tissue covering the bone, a radium plaque should be chosen. If the lesion involves thick soft tissue,

radium needles are preferable. The amount of milligram hours of radium to be applied has been variously estimated. It approximates two hundred to two hundred and twenty-five milligram hours of gamma radiation for every cubic centimeter of neoplastic tissue. Some clinicians may consider this a heavy dose, but if properly shielded and filtered, remarkable results occasionally follow.

Soft tissue involvement requires less filtering than malignant tissue which is covering osseous parts. One thickness of one fourth millimeter of lead sheeting is generally used in the mouth as a proper filter in addition to the filter on the radium tubes which are encased completely by this sheet of lead, making sure that no small holes are left open at the ends. Now, to shield the surrounding tissues from the action of the radium rays, two layers of lead, one, one-fourth, and one, one-half millimeter, are then used to cover the tubes. These two outer layers are cut away in the region of the plaque going against the lesion, having the rays filter through only one-fourth millimeter of lead. This window could be called the functioning portion of the radium plaque. The surface of the plaque mentioned above should envelop the lesion about one-half inch all around its edges, insuring the full irradiation of any small area or border surrounding the mass unseen by the naked eye. The plaque is then covered by a layer of adhesive plaster after all sharp edges have been rounded and smoothed to prevent undue trauma to the mouth tissues. It is then carefully placed against the lesion, making sure that the window of the plaque is directly over the lesion and does not overlap too much into healthy tissue. Dental modeling compound is used to hold this plaque securely in its proper position. It is first placed in hot water and made soft and plastic. Holding the plaque in place with one hand, the compound is well adapted around and over the plaque with the other. A portion of the mould is then extended outside the mouth and adapted to a portion of the face surrounding the mouth. When applied in the lower part, the mould is brought out over the skin, and out over the cheek and molar process in the case of upper insertions. This gives the mould a somewhat firm and solid foundation which prevents its moving out of position. If, before the application of the mould, the patient shows signs of gagging or gives a history of being susceptible to nausea, the gagging reflexes are diminished by swabbing carefully the back of the throat with a 10 per cent cocaine solution, care being taken not to allow any of the solution to drip down the patient's throat, thereby anesthetizing the epiglottis. This point should be well remembered as fatal results can follow this anesthetizing of the swallowing mechanism. The modeling compound mould is held secure on the outside of the face by means of strips of adhesive plaster having its ends bound well to the skin.

In cases having the neoplasm in somewhat thick soft tissues, one to ten milligram radium needles can be used successfully. With old type needles having monel metal filtration, twelve and one-half per cent of beta rays were liberated. This often caused a severe sloughing and consequently a more serious condition than was had before its application. But today platinum needles are used which reduce the sloughing to a minimum degree. A 2 per cent special Procaine solution containing Epinephrin is injected locally before the insertion of the needles. Often a thin layer of modeling compound is adapted to keep the needles imbedded in position. Thin wires which are attached to the needle are brought outside the mouth and made secure with a strip of adhesive plaster.

In some cases where a mild but prolonged irradiation is required, the radium needles are imbedded in the modeling compound mould after it has been adapted well over the lesion, hardened and removed from the mouth. The needles are so arranged as to have an overlapping of their rays to insure an even and balanced distribution. This is properly filtered with a layer of lead foil over the needles, and two layers, one and one-fourth to one and one-half millimeters thick, well adapted to the outside for shielding and preventing any outside radiation. The whole appliance is then coated with a thin layer of parafin to keep it clean and from absorbing the secretions of the mouth. In this manner it can be easily removed for feeding the patient and also to keep up the proper oral hygiene.

Some moulds have been kept in the mouth almost continuously for a period of eight days and could have been kept longer if necessary without any discomfort to the patient. Cases of malignancies of the tongue, especially the anterior and lateral two-thirds, present quite a problem, first to irradiate the lesion and only the lesion and not the surrounding structures, and second, to allow the patient enough comfort to endure the application over a somewhat long period of time. If the lesion is superficial, surface radiation is chosen; in this instance, the radium must be held firmly in place and not allowed to move. This is accomplished by means of fine German silver wires passed through the tongue and twisted together on the upper surface of the plaque. We must first prepare the plaque after determining how much radium is necessary, carefully filter and shield the rays, having the edges of the plaque smooth and round as possible. The window of the plaque is placed temporarily against the lesion and with a swab containing tincture of iodine the tongue is marked at the position where the wire sutures will

pass through. A 2 per cent special procaine solution is then applied locally to the area where these wires will penetrate, injecting slowly along the intended course. With a medium sized curved needle, with the wire threaded in the end, the sutures are passed through the tongue having the loose ends within, above, or below the tongue, depending on the location of the lesion. The plaque is placed carefully in position, held firmly, and the ends of the wires twisted together, holding the pack quite securely in place. This method of retention can be accomplished quite painlessly and enables the patient to swallow freely and insures our irradiating the involved area of the tongue.

All applications of oral radium should be done with the patient in bed with the head somewhat elevated to prevent a smothering sensation. A suction should be used to extract the excess salivary flow, but if one is not available, a cigarette drain very often suffices. A sedative can be given a restless patient to prevent any undue moving and perhaps dislocation of the mould.

Together with radium therapy in the oral cavity, deep x-ray has been very successfully used, to insure against any glandular involvement, if no metastasis is present, and to prevent further development if the cervical lymph glands are hard and palpable. Doses from 1,600 to 3,200 R Units of deep x-ray are applied to both sides of the neck, usually through one portal or sometimes two, the opposite side being irradiated as a precautionary measure. This may be given over a short period of time in quite large doses or extended, depending on the nature of the lesion and glandular involvement. Very often we have a secondary edematous reaction but this usually subsides nicely under treatment.

In discussing the application and importance of radium therapy, I attempted only to discuss the general methods and forms of application used in the tumor clinic of Charity Hospital. Only with time and experience and the actual usage of radium can the clinician be able to determine what procedure is best followed out and the most successful results obtainable.

J. T. NIX CLINIC
NEW ORLEANS

At a meeting held in October, Doctor Monte F. Myer presented the following paper.

SINUS DISEASE IN CHILDREN

Nasal sinus disease in children has existed since time immemorial, but it has come into prominence only within the last few decades. It is most opportune for every physician to realize its existence, as the laity are now becoming educated to the fact that children do have sinus trouble and want to know about it. Sinus disease has become such a feared disease by adults that it is our duty to disseminate the facts and assure our patients that, when properly treated, it can be cured. We know that every time we have a head cold, our sinuses become involved, but fortunately nature heals us and leaves our sinuses intact. When, however, because of repeated colds, the sinus mucosa becomes more and more involved, the membranes can no longer return to normal and diseased sinuses result. Diseased sinuses can no longer function normally and thus blockage and purulent formation occur. If the ostia remain open we have discharge without pain. If the pus can not escape, we have an empyema with pain, like the pain caused by pus in any other closed cavity.

To realize that children may have sinus disease it is necessary to know at what age the different sinuses are formed. About the forty-fifth day in the fetus, intra utero, the nasal sinuses begin to differentiate. The ethmoid cells are then formed and these later grow upward to form the frontal sinuses and downward to form the antra. At this time we see the furrows for the lateral wall of the nose, the lower becoming the inferior turbinate, the middle turbinate, and the upper the superior turbinate. The space or meatus between the turbinates is where the ostia of the sinuses open. The antra are formed about the same time. The sphenoid sinuses are evolved by a constriction of the upper and middle nasal ridges and grow into the body of the sphenoid. For practical consideration, the frontals do not become a source of consideration until about the sixth year, at which time they may become diseased. At thirteen the antrum has reached its adult size. The anterior ethmoidal cells are the sinuses most frequently involved, then the antrum, sphenoid, frontal, in the order named.

How is the sinus disease recognized in children? —By chronic, constant, continuous nasal discharge. Many children have a chronic cough not explainable by lung findings, some have stomach disturbance, due to swallowing of pus from the sinuses. Pain is rarely a symptom in children and they seem to thrive as well as normal children. Occasionally they complain of headaches on arising, which usually disappear after they have been up for some time, due to position and drainage. The reasons for examining the nasal sinuses of children are: (1) cough, (2) undetermined temperature, (3) enlarged cervical glands, (4) malnutrition, (5) ocular disturbance especially of lids or conjunctiva, (6) asthma, (7) arthritis, and (8) heart disease.

The diagnosis is made by inspection, transillumination and x-ray. What I have said applies to the chronic and subacute types of sinus infection and mainly applies to the antrum and anterior ethmoids. There are at times acute infection of the

ethmoids and the history of the case is like this: Child has had an acute cold with temperature ranging from 100° to 104° and nasal discharge and then one or both eyelids begin to swell progressively—edema of both palpebral and bulbar conjunctiva with pain and exophthalmos. This edema may be passive due to pressure of the pus in the ethmoidal labyrinth pressing on the veins in the orbital fat; or it may be due to a rupture with extension of pus into the orbit. These cases are quite alarming and it is necessary to determine whether surgery is indicated or to attempt medical or conservative treatment. When there is induration and fixation of the eye, surgery is imperative.

Frontal disease is rare in children. I have never seen one, as the frontal sinus does not develop large enough to be of importance until at about six years of age.

The sphenoid sinus is of importance because of its relation to the ophthalmic and maxillary nerves and of its proximity to the pterygoid or Videan canal with its structures producing trigeminal or Videan neuralgia. The most important factor is the relation of optic neuritis with sudden loss of vision usually in one eye without any pathological findings in the optic nerve head.

Treatment

Constitutional: It is necessary that the oto-laryngologist work in close harmony with a pediatrician or family physician. All possible factors should be corrected and I incline to some form of irradiated cod liver oil, well balanced diet and inclusion of many vegetables.

(1) *Medical or conservative.* Astringents and antiseptics as ephedrine or adrenalin with merthiolate, argyrol, neosilvol or other antiseptic. The drops must be placed in the child's nose so it comes in contact with the middle turbinate. The Proetz position is best; patient lying supine with the head extending over the edge of a bed and dropped so the nose is uppermost. The head is held in this position for ten minutes and then the patient is allowed to sit up and suction is applied. I use electric suction at the office and Dee hand suction syringe at home. This is done at first twice daily and as the case improves once daily. At the office I use the Dowling tampons with argyrol and ephedrine. The astringent drops are used several times a day. In the acute ethmoidal type, cold compresses are used until the edema disappears. (2) *Surgical.* Where a case of maxillary sinus has been under conservative treatment for four to six weeks without improvement then surgery is done,—a naso-antral opening with as little damage to structures in the floor of the antrum as possible as the permanent teeth are not erupted. In the acute ethmoidal type of sinusitis, removal of the middle turbinate or at times an external ethmoidectomy, if there is an external fistula, is done. In cases of optic neuritis with blindness progressing, a sphenoidectomy should be performed.

A few cases are illustrated as follows:

Case 1. Child, age 5 years. Tonsils and adenoids removed 18 months ago; nasal discharge, bilateral, for past year. Runs temperature off and on, 99° to 100°. Appetite poor; weight stationary. X-ray showed both antra cloudy. Child put on conservative treatment for three weeks with no improvement. Bilateral naso-antral opening with removal of tonsil and adenoid tags. Further use of conservative treatment after operation plus supportive measures, irradiated cod liver oil, sunlight. Nose cleared up entirely. Child gained weight. Appetite improved. Cough disappeared.

Case 2. Baby G., age 21 months. Temperature 103° to 104°. Nose filled with pus. Both eyes closed. Eyelids swollen. Exophthalmos, swelling of bulbar and palpebral conjuntiva. Fixation of right eye with induration. Conservative therapy reduced left eye but it was necessary to do a middle turbinectomy on right with a slow but complete recovery.

Case 3. Girl, age 14, with vision in left eye reduced to finger count at three feet. Noticed loss of vision suddenly. Pus in left nares. X-ray showed left ethmoid and sphenoid involvement. Empyema of left sphenoid. Sphenoidectomy under local. Vision returned to normal within forty-eight hours. No further treatment.

There is still a further type of nasal discharge in children with negative transillumination and x-ray. The nose looks like the infectious type but secretion shows an increase of eosinophiles, the allergic type. This is hard to treat as allergy is yet in its infancy but we are making some headway in these cases, though it is still in the experimental stage. In such children, allergic tests should be made and sensitive foods eliminated from the diet; should pollens or grasses be the causative factor, a serum can be given.

There is still an issue which has never been satisfactorily proven or disproven as to whether the removal of tonsils and adenoids does not make children more susceptible to nasal sinus disease. My own opinion, from personal experience, is that sinus disease occurs, regardless, and is less amenable to treatment in the non-tonsillectomized than in the tonsillectomized child. Where there are tonsils or adenoids, they should be removed and this also applies to tonsil and adenoid remnants.

SUMMARY

(1) Sinus disease does not exist in children from infancy up.

(2) Cure can be obtained with correct diagnosis and painstaking treatment.

(3) Local treatment should be given only by

the otolaryngologist and supportive measures only by the pediatrician or family physician.

(4) The lay public must be educated not to neglect sinus disease in children and not to fear it.

MERCY HOSPITAL

The regular monthly meeting of the Mercy Hospital Staff was held on October 2, 1935, with Dr. J. E. Brierre presiding.

Dr. E. L. Zander presented an interesting paper on obstetrical statistics of Charity Hospital from 1927 to 1934 inclusive. Comparison was made on statistics from the year of 1927 to 1931 and 1931 to 1934. The total number of obstetrical cases and abnormal ones had shown a marked increase in the last four years (1931-1934). Caesarian sections and podalic version were about the same. Puerpal septicemia showed increase in the last three years.

Two deaths were then discussed. The first case was that of a pyometra with chronic appendicitis, followed by peritonitis. In this case the pus from the uterus entered the abdominal cavity. The patient seemed to be doing nicely for a few days, but then took a turn for the worse when peritonitis developed. Her condition was then on the down grade and patient expired two to three days later. The second case was that of an appendicitis also, the patient being very sick on admittance due to the appendix having ruptured, which resulted in the death of the patient. This case was the result of the usual method of giving a purgative for abdominal pain without proper examination and diagnosis. This was not the fault of the operator as patient was brought from out of town in that condition.

R. A. Oriol, M. D.
Secretary

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

NOVEMBER 2 Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

NOVEMBER 6 Clinico-Pathological Conference Touro Infirmary, 11:15 A. M. to 12:15 P. M.

NOVEMBER 6 Mercy Hospital Staff, 8 P. M.

NOVEMBER 8 Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

NOVEMBER 8 French Hospital Staff, 8 P. M.

NOVEMBER 11 ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

NOVEMBER 13 Touro Infirmary Staff, 8 P. M.

NOVEMBER 15 Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

NOVEMBER 15 I. C. R. R. Hospital Staff, 12 Noon.

NOVEMBER 18 Hotel Dieu Staff, 8 P. M.

NOVEMBER 19 Charity Hospital Medical Staff, 8 P. M.

NOVEMBER 20 Clinico-Pathological Conference Touro Infirmary, 11:15 A. M. to 12:15 P. M.

NOVEMBER 20 Charity Hospital Surgical Staff 8 P. M.

NOVEMBER 21 Eye, Ear, Nose and Throat Club, 8 P. M.

NOVEMBER 22 Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

NOVEMBER 25 ORLEANS PARISH MEDICAL SOCIETY, 8 P. M. Nomination of Officers, 1936, and Election of Delegates to the Louisiana State Medical Society.

NOVEMBER 26 Baptist Hospital Staff, 8 P. M.

NOVEMBER 27 Clinico-Pathological Conference, Touro Infirmary, 11:15 A. M. to 12:15 P. M.

NOVEMBER 29 Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

During October, besides the regular meeting of the Board of Directors, the Society held two meetings. Monday, October 14, a joint Scientific and Third Quarterly Executive Meeting was held. The following program was presented:

SYMPOSIUM ON LOW BACK PAIN

Dr. John F. Dicks—Gynecological Aspects of Low Back Pain.

Dr. John G. Pratt—Urological Aspects of Low Back Pain.

Dr. G. C. Battalora—Orthopedic Aspects.

There was no discussion.

Reports of the Officers and Special and Standing Committees for the Third Quarter were read.

On Monday, October 28, a joint Clinical Meeting of the Orleans Parish Medical Society with the Charity Hospital Staff was held in the Miles Amphitheatre, Charity Hospital. Interesting cases were presented and discussed.

The Secretary, Dr. H. B. Alsobrook, has been in St. Paul, Minnesota, where he underwent an operation on his eyes. It is hoped he will be back with us soon.

Drs. Chas. A. Bahn, W. R. Buffington, Wm. B. Clark, J. R. Hume, John Gooch and Wm. A. Wegner attended the meeting of the National Academy of

Ophthalmology and Otolaryngology held in Cincinnati.

Dr. Howard A. Mahorner has been given an award by the American Association for the advancement of Science for his study in connection with the causes of goiter.

Drs. C. C. Dauer and R. A. Strong attended the Southern Tuberculosis Conference and Sanatorium Association held at the Rice Hotel, Houston recently.

Dr. John H. Musser addressed the Pike County Medical Society at McComb, the Gorgas Medical Society at Tuscaloosa, and the Chattanooga Medical Society at Chattanooga, last month.

Dr. Frederick L. Fenno attended the meetings of the American Public Health Association and American Association of School Physicians.

Drs. Wm. B. Clark and Neal Owens were guest speakers at the meeting of the Jefferson County Medical Society in Birmingham.

It is with the deepest regret that we record the deaths of two of our oldest members of the Society. Dr. Ernest Sidney Lewis, one of the charter members of the Orleans Parish Medical Society died August 21, 1935. Dr. Felix A. Larue died October 5, 1935.

The Magnolia School for Deficient Children was opened October 1. This school is to be in charge of teachers well qualified and trained for this particular type of work. The following members of the Orleans Parish Medical Society comprise the medical advisory board of the institution: Dr. Chas. J. Bloom, General Chairman; Drs. Ruth Aleman, Gilbert C. Anderson, H. A. Bloom, W. W. Butterworth, Frederick L. Fenno, Julian Graubarth, C. S. Holbrook, O. Joachim, F. E. LeJeune, Maud Loeber, Urban Maes, E. A. Socola, Jack E. Strange, R. A. Strong and Geo. J. Taquino.

TREASURER'S REPORT

ACTUAL BOOK BALANCE: 8/31/35	$385.22
September Credits:	$156.58
TOTAL CREDITS:	$541.80
September expenditures:	$439.41
ACTUAL BOOK BALANCE: 9/30/35	$102.39

LIBRARIAN'S REPORT

This has been the Library's busiest summer since its reorganization began in 1920. It is interesting to note that more books were loaned to doctors during September than during any month in 1935. The circulation to doctors during July was 535, August 554 and September 858. Loans to students brought the totals to 744, 699 and 1039 respectively, or a total for the quarter of 2,482. The statistics do not include the great use of books and journals in the Library Rooms.

Material has been collected on 34 subjects at the request of physicians during July-September, as follows:

Medical ethics
Coccydynia
Pathology of venoms
Hormore therapy in ocular diseases
Mycosis fungoidis
Tumors of iris
Treatment of x-ray burns
Congenital heart disease
History of dentistry in New Orleans
Causalgia
Eyes and endocrines
Operative technic for hydrocele
Thrombosis of portal vein
Pseudo-Graefe's sign—unilateral
Original articles of Smythe and Souchon on subclavian aneurysm
Walker's needle in detached retina
Hunner's ulcer
Mucus and mucin biochemically considered
Hypernephroma of ovary
Anetoderma erythmatodes
Jodassohn's disease
Noise and the nervous system
Breech presentation
Pyelitis (1931-35)
Obstetrical and gynecological peculiarities of negro
Fracture of femur
Spivak method of gastrostomy
Osler's estimate of Gorgas' work
Piliodol in bronchiectasis
Aneurysm of heart
Torsion of the adnexa
Encephalitis as sequel to empyema
Superior hypogastric sympathectomy
Gynecological significance of low back pain.

One hundred and thirty-six books have been added to the Library during the Third Quarter. Of these 44 were received by binding, 72 by gift, 1 by purchase and 19 from the New Orleans Medical and Surgical Journal.

NEW BOOKS

Greenwood, Major—Epidemics and Crowd Diseases. 1935.

Livingston, W. K.—Clinical Aspects of Visceral Neurology. 1935.

Jacks, L. V.—Mother Marianne of Molokai. 1935.

Graham, E. A.—Surgical Diseases of Chest. 1935

Harnes, A. R.—Clinical Management of Syphilis. 1935.

Bryce, Alexander—Ideal Health. 1935.

Joll, C. A.—Aids to Surgery. 1935.

Key, J. A.—Management of Fractures, Dislocations and Sprains. 1935.

Hinman, Frank—Principles and Practice of Medicine. 1935.

Harvey Society—Harvey Lectures, 1933-34. 1935.

Osler, Sir William—Principles and Practice of Medicine. 1935.

Petersen, W. F.—Patient and the Weather. v. 2 1934.

Washington Institute of Medicine. v. 6. 1934.

Milbank Memorial Fund—Annual Report. 1934.

Dorland, W. A. N.—American Illustrated Medical Dictionary. 1935.

Dominguez, Francisco—Docteur Carlos Finlay. 1935.

Goldthwait, J. E.—Body Mechanics. 1934.

Novak, Emil—Woman Asks the Doctor. 1935.

Heise, F. H.—1000 Questions and Answers on T. B. 1934.

Kanner, Leo—Child Psychiatry. 1935.

Lockhart-Mummery, J. P.—Diseases of Rectum and Colon. 1934.

Lewis, Dean, ed.—Practice of Surgery. Index.

Abrahamson, Isador—Lethargic Encephalitis. 1935.

Cornell University Medical College—Studies from Physiology Department. 1932.

Milbank Memorial Fund—Policies and Procedures in Public Health. 1935.

Fossier, A. E.—History of Medical Education in New Orleans. 1934.

Dios Chemical Company—Syndromes and Signs in Medicine. 1933.

Reid, W. D.—Teaching Methods in Medicine. 1933.

Berry, G. H.—Idleness. 1933.

Lilly Research Laboratories—Dedication. 1934.

Account of the College of Physicians of Philadelphia. 1934.

U. S. Labor Department—Maternal Mortality in 15 states. 1934.

H. B. Alsobrook, M. D.
Secretary

LOUISIANA STATE MEDICAL SOCIETY NEWS

ST. LOUIS MEDICAL SOCIETY INVITES SOUTHERN PHYSICIANS

The 29th Annual Meeting of the Southern Medical Association, the second largest medical organization in the United States, will be held in St. Louis November 19-22.

The unusual clinical facilities of the two medical schools and the numerous hospitals, combined with the high standing of the medical profession, and the excellent hotel accommodations make St. Louis an ideal city for this medical gathering.

Addresses and papers will be presented by distinguished clinicians, not only from the South, but from all over the United States as well as from several foreign countries.

The St. Louis Medical Society extends a very cordial invitation to all physicians in good standing in their State and Provincial medical societies to attend this meeting.

SOUTHERN MEDICAL ASSOCIATION

Please be good enough to give us a little space in your November issue, so that we may again call the attention of the profession of Louisiana and Mississippi to the fact that the great Southern Medical Association will hold its twenty-ninth annual session in St. Louis, beginning November 19.

A wonderful scientific and entertaining program has been planned and a large attendance is expected and arranged for; St. Louis is well supplied with first-class hotels, of which the Jefferson is the headquarters for the meeting; this excellent hostelry is only about four blocks from the mammoth new auditorium, where the meetings will be held.

We want a larger membership from our states, so that we are urging all who can possibly get away to come to St. Louis and whether they can come or not, we want every member of our state societies to send in his application and join this worthy organization, thereby promoting a good cause and, at the same time keeping up with the papers read at the meeting through the official journal, the Southern Medical Journal, which alone is well worth the amount of the annual dues.

Will we meet you in St. Louis? WE HOPE SO!

A. A. Herold, Councillor for La.

PREVENTION OF EYE DISEASES

The inauguration of a new clinic for the prevention of eye diseases, sponsored by the department of ophthalmology, Tulane Graduate School of Medicine, was announced and explained by Dr. M. Earle Brown, head of the department, in a lecture delivered October 9, 1935, at the Eye, Ear, Nose and Throat Hospital, where the clinic will be conducted.

"Such a clinic has not been offered in New Orleans before," Dr. Brown said, "and we believe it to be new in America. As you know, the clinics in this hospital are for the purpose of conserving vision and preventing blindness. The new clinic

will endeavor to prevent the diseases which cause blindness.

"In the management of such a clinic one must consider ways and means of educating the masses in how to care for the eyes from infant life to the last stages of life.

"Parents must be instructed how to take the proper care of that most precious possession, the child's eyes. All handicaps, whether from disease, crossed eyes, defective vision of improper illumination, should be remedied before the child enters school.

"We do not expect crippled children to compete in marathon races or to become football heroes, then why should we expect children with optical defects to compete with children with normal vision?

"Another problem is the pre-occupational period. When a child finishes school the parents believe that he will succeed best in doing the thing he likes best. At this critical period no attempt is made to determine the fitness of his eyes to the occupation he is going to follow and many times years of apprenticeship are wasted which could have been saved by a pre-occupational eye examination.

"The proper care of children's eyes during epidemics must be explained to parents in order that the infection not be carried from one eye to the other and from one member of the family to the other."

The clinic will cooperate with the work being planned by the Louisiana Sight Saving council, and a sight-saving day, or week, will be announced later, when the eyes of all applicants will be examined free.

A film made by lighting engineers and used by the council as part of their educational work in bringing the message of sightsaving to the public, was shown following Dr. Brown's lecture.

SOCIETY FOR PREVENTION OF BLINDNESS

The annual conference of the National Society for the Prevention of Blindness will be held at the headquarters of the Society in Rockefeller Center, New York, December 5-7, it is announced by Lewis H. Carris, managing director. Among the topics to be discussed will be: Medical Social Eye Work; The Prevention of Eye Accidents Caused by Fireworks; and The Division of Responsibility between Official and Unofficial Agencies in the Movement for Prevention of Blindness.

Mr. Carris also announced the election of the following as honorary vice-presidents of the Society: Dr. George E. DeSchweinitz of Philadelphia, emeritus professor of ophthalmology in the Medical School, University of Pennsylvania; Dr. John H. Finley, associate editor of the New York Times; and Miss Lillian D. Wald, president of the Henry Street Settlement of New York City. Other honorary vice-presidents of the Society are: United States Senator Thomas P. Gore of Oklahoma; Helen Keller; and Mrs. Winifred Holt Mather.

GRADUATE SCHOOL OF MEDICINE THE TULANE UNIVERSITY OF LOUISIANA

Dr. H. W. Kostmayer, Dean and Professor of Gynecology in the Graduate School of Medicine, The Tulane University of Louisiana, attended a meeting of the 8th District Medical Society held at Alexandria, La., Wednesday, October 2, 1935, and gave an address during the demonstration of a moving picture film on Cervical Cesarean Section.

Dr. O. W. Bethea, of the faculty of the Graduate School of Medicine, The Tulane University of Louisiana, addressed the Fourth District Medical Society at Shreveport, La., on Tuesday, October 1, 1935, on "Cardiac Reserve."

Dr. C. C. Dauer, of the faculty of the Graduate School of Medicine, The Tulane University of Louisiana, was on the program for the Southern Tuberculosis Congress held at Houston, Texas, September 16, 17 and 18. Dr. Dauer also attended the meeting of the American Public Health Association held at Milwaukee, Wisconsin, October 7 to October 10, 1935.

In addition to the regular eye clinic at the Eye, Ear, Nose and Throat Hospital there will be instituted a clinic for the prevention of eye diseases which is strictly educational, and under the auspices of the Graduate School of Medicine of The Tulane University of Louisiana.

Dr. John T. Sanders, of the faculty of the Graduate School of Medicine of Tulane University, attended the meeting of the Harris County Medical Society held in Houston, Texas, on October 9, 1935, and read a paper on "Office Management of Commonly Neglected Gynecological Conditions."

UNITED STATES PUBLIC HEALTH SERVICE NOTES

Surgeon Richey L. Waugh, has been directed to proceed from New Orleans, La., to San Francisco, and Oakland, Calif., for the purpose of reading a paper and to give a clinical demonstration under the Section of Orthopedic Surgery at the meeting of the Clinical Congress of the American College of Surgeons, October 21 to November 1, 1935, and return.

Medical Director L. L. Lumsden, has been directed to proceed from New Orleans, La., on or about November 18, 1935, to St. Louis, Mo., and return, for the purpose of attending the meeting of the Southern Branch of the American Public Health Association, November 19-23, 1935.

Passed Assistant Surgeon B. O. Lewis, has been relieved from duty at New Orleans, La., and directed to proceed to Galveston, Texas, and report to the Medical Officer in Charge of the Marine Hospital.

Surgeon M. F. Haralson, has been directed to proceed from Washington, D. C., to Richmond and Charlottesville, Va., in connection with rural health work, and return to New Orleans, La.

The many friends Dr. O. E. Denney made during his long time service at the Marine Hospital at Carville, will learn with regret of his being transferred to a new post in the United State Public Health Service. Dr. Denney has always cordially welcomed visiting physicians to the leprosarium. Every year he greeted most hospitably and put on a magnificient clinic meeting for the senior class at Tulane. For ten years now the graduates of this school have had an unequaled opportunity of seeing leprosy in all of its expressions. This has been made possible through the hearty cooperation of Dr. Denney.

The best wishes of the host of friends that he has made go with him in his new undertaking.

EXAMINATION FOR APPOINTMENT AS ASSISTANT SURGEON IN THE RESERVE CORPS OF THE U. S. PUBLIC HEALTH SERVICE

As examination for entrance into the Reserve Corps of the United States Public Health Service in the grade of Assistant Surgeon is hereby announced to be held November 18, 1935. Applicants must not have passed their thirtieth birthday. They must be graduates of a reputable medical college and have completed at least one year of interneship since graduation, or its equivalent. Successful candidates will be ordered to active duty in the Reserve Corps, in which is expected that vacancies will occur soon after January 1, 1936, and will be eligible for examination for entrance into the regular commissioned corps when such examinations are held, provided they have not passed their thirty-second birthday.

The compensation of officers in the grade of Assistant Surgeon in the Reserve Corps is the same as that for officers in the Regular Corps; namely, with dependents, $3,158 per annum; without dependents, $2,699 per annum.

Boards will be appointed in various cities throughout the United States so as to avoid as much travel as possible, which, if necessary, must be made at the candidate's own expense.

Persons desiring permission to take this examination should make request to the Surgeon General, U. S. Public Health Service, Washington, D. C., for the necessary blanks and other information.

H. S. Cumming,
Surgeon General.

HEALTH OF NEW ORLEANS

The Department of Commerce, Bureau of Census, reports that for the week ending September 14 there were reported 140 deaths in the city of New Orleans, divided 82 white and 58 colored. This made the death rate for the group as a whole 15.2 with the white death rate 12.5 and the negro 21.7. The infant mortality rate this week was 101, the colored rate being 190 and the white 47. In the succeeding week, ending September 21, there was a slight increase in the number of people who died in the city. This week there were 78 white deaths and 69 colored, making a total of 147 deaths with a total death rate of 15.9, the rate for the white race being 11.9 and the negro 25.8. The infant mortality rate was 119, largely as a result of the tremendously high rate of 237 for negro infants. The week ending September 28 again showed a rise in the number of deaths with a total of 161 deaths for the two races, 91 white and 70 colored. The death rate for the group as a whole was 17.4, for the white 13.9 and for the colored 26.2. The infant mortality rate was only 107. There was a big drop in the number of deaths for the week ending October 5, these falling to 136 of which 87 were in the white race and 49 in the colored. The death rate for the two groups as a whole was 14.7, the white rate being 13.3 and the colored 18.3. Part of the drop in the total number of deaths might be explained on the basis of the pronounced drop in the infant mortality rate which was only 53 for this week.

INFECTIOUS DISEASES IN LOUISIANA

Dr. J. A. O'Hara, Epidemiologist for the State of Louisiana, has furnished us with the weekly morbidity reports for the State of Louisiana, which contain the following summarized information: For the thirty-eighth week of the year ending September 21, there were reported 159 cases of malaria, 39 of typhoid fever, 36 of pneumonia, 35 of syphilis, 32 of diphtheria, 30 of pulmonary tuberculosis, 21 of cancer and 16 of scarlet fever. The big jump in the number of cases of typhoid fever reported this week was due to the report of cases from 21 different parishes, eight of which came from West Carroll, 4 from Red River and 3 each from Bienville and Jackson Parishes. Two cases of poliomyelitis were reported from Orleans Parish. For the thirty-ninth week of the year ending September 28, the following diseases were listed in double figures: malaria again led the important diseases, there being 136 cases reported. There were also 41 cases of pneumonia, 31 of cancer, 27 of typhoid fever, 26 of pulmonary tuberculosis and 13 of syphilis. This week Jackson Parish with 9 cases reported, followed by Caddo with 3 and Lafayette with 3 were the chief sites of typhoid fever cases. One case of poliomyelitis was report-

ed from Catahoula Parish. In the fortieth week of the year ending October 5, malaria was still way ahead of the other reportable diseases in the numbers listed for the week. There were 148 cases sent into the office of Dr. O'Hara this week. Other diseases occurring in double figures were as follows: 57 cases of pulmonary tuberculosis, 40 of pneumonia, 28 of cancer, 26 of diphtheria, 20 of syphilis, 15 of scarlet fever. Typhoid fever this week fell, there being 7 cases reported for the week. Two cases of undulant fever occurred, one in Caddo and one in Orleans Parish. For the next week, ending October 12, malaria had 89 cases and syphilis had increased to 62. There were also listed 18 cases of cancer, 16 of pulmonary tuberculosis, 15 of pneumonia, 14 of diphtheria, 12 of typhoid fever and 11 of scarlet fever. Four cases of poliomyelitis were reported, these coming from Avoyelles, LaSalle and Tangipahoa Parishes. No parish reported more than 2 cases of typhoid fever. The 4 cases of typhoid fever reported by the City Board of Health in New Orleans, were imported.

WOMAN'S AUXILIARY

Louisiana State Medical Society

President—Mrs. Herman B. Gessner, New Orleans.
President-Elect—Mrs. James Byron Vaughn, Monroe.
1st. Vice-President—Mrs. Samuel B. Kreeger, Lake Charles.
2nd. Vice-President—Mrs. L. E. Shirley, Jennings.
3rd. Vice-President—Mrs. D. T. Milam, Monroe.
4th. Vice-President—Mrs. Harry R. Marlatt, Homer.
Treasurer—Mrs. Jos. E. Heard, Shreveport.
Recording Secretary—Mrs. James W. Warren, New Orleans.
Corresponding Secretary—Mrs. Leonhard E. Devron, New Orleans.
Parliamentarian—Mrs. C. E. Rew, Shreveport.

Dear Members and Co-workers in our Louisiana State Medical Auxiliary:—

With the coming of November, I feel you all be keenly alert and deeply interested in continuing your serious work in the Auxiliary. I feel I express your wishes when I say we are seeking to make our Auxiliary of such genuine service to the medical profession in our State that we shall enjoy the loyal support of every doctor, and our membership will include all of their wives.

I hope you have all read the letter of Dr. Courtland P. Gray, President of the State Medical Society, which appeared in the July number of the Journal. It is such a warm and cordial approval of our Auxiliary work. In the same number of the journal, you will see that Dr. Chailé Jamison, Past President, also expresses his warm approval of the Auxiliary movement.

Our relations with the State Medical Society are very pleasant and friendly. We are indeed grateful to Dr. John H. Musser, Editor-in-Chief, and Dr. Paul T. Talbot, General Manager, for the generous amount of space which is accorded us in the Journal.

Mrs. George Feldner is our Publicity Chairman and she has made excellent use of our space in the New Orleans Medical and Surgical Journal. I hope you are following it, as it gives a very interesting and complete review of our activities.

At the head of our space you will see the names of our elected officers. The following list covers the names of our Chairmen of Committees:—

Chairmen of Standing Committee:

Organization—Mrs. S. M. Blackshear, New Orleans.
Program—Mrs. Robert T. Lucas, Shreveport.
Finance—Mrs. L. A. Hebert, Lake Charles.
Legislation—Mrs. Arthur A. Herold, Shreveport.
Public Relations—Mrs. W. P. Gardiner, New Orleans.
Hygeia—Mrs. E. T. Milam, Monroe.
Revisions—Mrs. L. E. Shirley, Jennings.
Press & Publicity—Mrs. George D. Feldner, New Orleans.
Printing—Mrs. Chaillé Jamison, New Orleans.
Archives—Mrs. Alton Ochsner, New Orleans.
Historian—Mrs. Isidore Cohn, New Orleans.
Exhibits—Mrs. W. P. Bordelon, Lake Charles.
Indigent Physicians' Fund—Mrs. Jules Myron Davidson, New Orleans.
Councilors—1st. District—Mrs. Roy B. Harrison, New Orleans.
2nd. District—Mrs. C. Grenes Cole, New Orleans.
3rd. District—No appointment.
4th. District—Mrs. C. B. Erickson, Shreveport.
5th. District—Mrs. C. P. Gray, Monroe.
6th. District—No appointment.
7th. District—Mrs. George Kreeger, Lake Charles.
8th. District—No appontment.

To most of us, these names have a friendly and familiar ring as they are women who have given loyal support and earnest work to the Auxiliary. They will need much assistance, and I bespeak for them a hearty response. You will hear much of the activities of our committees through Mrs. Feldner's facile pen.

It is so encouraging to see how many interesting projects are being carried out by the Auxiliaries. Their reports in the Journal are very helpful. They show a delightful combination of fine work and play.

You will recall at our meeting in April, the resolution to observe annually a "Doctors' Day" was unanimously carried. Dr. H. W. Kostmayer, President-Elect of the State Medical Society and

also Chairman of our Advisory Council, has given this project his hearty approval as you will see from his letter, which I quote:

"The more I think of the idea of setting aside a day to be known as "Doctors' Day," the more I am pleased with it. It seems to me that with the full force of the Auxiliary behind it, the movement will be a success from the first. The day should, in time, become one of the outstanding events of our medical year.

I hope you may decide to go forward with this plan; let me add that if it develops, that if I can do anything officially or personally, I will deem it a privilege as well as a pleasure to be of assistance."

Mrs. Vaughn, President-elect of the State Auxiliary has accepted the Chairmanship of the Doctors' Day project. Mrs. Vaughn is deeply interested in launching it in a way which will do high honor to the medical profession of our State.

The September Journal carries the program for the meeting of the Southern Medical Auxiliary in St. Louis in November. We are entitled to be represented by two delegates and two alternates, so if you are planning to go, please let me hear from you. If possible, we hope to have our full official representation. We were fortunate enough to have our full quota of delegates and alternates at the June meeting of the American Medical Association. Mrs. Herold's interesting report of the meeting was given in the Journal. It was very illuminating.

Mrs. Watkins is our Chairman of arrangements for the annual meeting in Lake Charles this year. It is some time off, but Mrs. Watkins is already enthusiastically making plans. All those who are fortunate enough to go will find a very cordial hospitality awaiting them.

One of the pleasant results of our annual meeting was the addition of four new names to our members-at-large. They are:

Mrs. Whyte G. Owen, White Castle.
Mrs. E. M. Levert, St. Francisville.
Mrs. Roy Carl Young, Covington
Mrs. Henry E. Gautreaux, Covington.

It gives us great pleasure to extend to them a hearty welcome.

I feel that the Woman's Auxiliary to the Louisiana State Medical Society has the warm support of its members and has a year of fine achievement ahead of it.

With good wishes to every member, I am,

Sincerely,

Jessie H. Gessner,
President, Auxiliary, Louisiana
State Medical Society.

SOUTHERN MEDICAL PROGRAM

Following are the complete details of the St. Louis meeting, which was promised you in last month's Journal:—

The twelfth annual convention of the Woman's Auxiliary to the Southern Medical Association will meet in St. Louis, November 19-22, 1935.

The pre-convention Board meeting will convene Wednesday, November 20, Hotel Jefferson, 9:30 A. M. Each State is entitled to send her President, two delegates and two alternates to the Convention, to form with the Auxiliary officers and Chairmen, the voting authority of the Auxiliary.

Business sessions follow: Each item has been timed and a promise that adjournment will be when designated or earlier is made:—

Register: Hotel Jefferson, November 19-21, 1935. Pre-Convention Board Meeting, Hotel Jefferson, 9:30 A. M., Wednesday, November 20, 1935.

Opening meeting with luncheon, Hotel Jefferson, Wednesday, November 20, at 12:30 P. M. All women attending the Convention are invited to attend. Tickets may be secured when registering.

Immediately after, at 2:30 P. M. or earlier, there will be a Round-Table Conference with five minutes esposition of plans on Organization, Health Education (program), Hygeia, History, and Archives. Each talk will be followed by questions from members. All women at luncheon are invited to attend this conference which will adjourn at 3:15 P. M.

It is necessary for members who are not officers and chairman to attend, because they are equally important in fulfilling the objectives of the Auxiliary and should understand Auxiliary functions.

Thursday, November 21: The annual meeting will be called at 9:30 A. M., with adjournment at 12:30 P. M. or earlier.

Special addresses:

Wednesday, Luncheon-meeting by Dr. H. Marshall, Taylor, Florida, President, S.M.A., ten minutes.

Advisory Committee, two minutes each for the three.

Mrs. Rogers N. Herbert, Tenn., President National Auxiliary, ten minutes.

Thursday: Mrs. David N. Long, Mo., Chairman Public Relations Committee National Auxiliary, ten minutes.

Thursday, 9:30 A. M., Post-convention Board Mrs. Oliver Hill, President presiding.

The program has been planned to be informing, non-fatiguing and happy. Time for social events, visiting, sight-seeing and rest will be plentiful.

The St. Louis and Missouri Auxiliaries send us gracious assurances of welcome, attention and hospitality. Let us honor our Medical Profession and acknowledge the invitation and generous re-

ception of the hostess Auxiliaries by attending this Convention.

ORLEANS PARISH

New Orleans, La.

President—Mrs. W. Rogers Brewster, 1521 S. Carrollton Ave.

President-Elect—Mrs. W. P. Gardiner, 2315 S. Carrollton Ave.

1st. Vice-President—Mrs. J. W. Warren, 470 Audubon Blvd.

2nd. Vice-President—Mrs. Russell E. Stone, 1705 Napoleon Ave.

3rd. Vice-President—Mrs. Shirley C. Lyons, 2412 Pine St.

4th. Vice-President—Mrs. Edmond Souchon, 2931 St. Charles Ave.

Treasurer—Mrs. Jules Myron Davidson, 3824 Versailles Blvd.

Recording Secretary—Mrs. Ernest Allgeyer, 1139 Nashville Ave.

Corresponding Secretary—Mrs. H. Ashton Thomas, 3426 St. Claude Ave.

Historian—Mrs. Otto Joachim, 1911 Octavia St.

Parliamentarian—Mrs. Hermann B. Gessner, 119 Audubon Blvd.

Press and Publicity—Mrs. Ralph J. Christman, 1509 Dufossat St.

Meets second Wednesday of each month.

The Woman's Auxiliary to the Orleans Parish Medical Society met on Wednesday afternoon, October 9, at their first meeting-reception of the 1935-36 season. Mrs. W. Rogers Brewster, president, introduced the various chairmen and their committees so that each member might become familiar with the committee-workers and know just what the Auxiliary is accomplishing.

There being very little business to be discussed, the members enjoyed a delightful musical program rendered by Mrs. Helen Calongue and Mrs. Gabrielle Lavedan.

Mrs. S. Chaillé Jamison, Past President, and Mrs. W. P. Gardiner, President-Elect, presided at the very prettily decorated tea-table.

Mrs. Ralph Christman,
Chairman, Press & Publicity.

CADDO PARISH

Shreveport, La.

President—Mrs. F. G. Ellis, 4624 Fairfield.

President-Elect—Mrs. R. T. Lucas, 535 Broadmoor Blvd.

1st. Vice-President—Mrs. J. T. Crebbin, 1133 Kinshiway.

2nd. Vice-President—Mrs. B. C. Garrett, 924 Monrovis.

Recording Secretary—Mrs. C. B. Webb, 601 Oakley Drive.

Corresponding Secretary—Mrs. W. B. Allums, 1128 Janther Place.

Treasurer—Mrs. J. E. Knighton, Jr., 650 Oneonta.

Parliamentarian—Mrs. C. P. Ruthledge, 4334 Richmond.

Press and Publicity—Mrs. Johnson R. Anderson, 148 East Jordan.

Meets second Wednesday of each month.

The first meeting of the 1935-36 year of the Woman's Auxiliary of the Shreveport Medical Society, which was a musical tea, was held on October 9. This very lovely affair was held at the home of the President, Mrs. F. G. Ellis. Mrs. Ellis spoke very encouragingly and enthusiastically to the sixty members who were present.

The work at the Pines Preventorium, which is the major project of this auxiliary has been carried on through the summer and sixteen children can now be taken care of.

Mrs. Johnson R. Anderson,
Chairman, Press & Publicity

CALCASIEU PARISH

Lake Charles, La.

President—Mrs. S. F. Hatchette.

President-Elect—Mrs. L. Z. Kushner.

1st. Vice-President—Mrs. G. C. McKinney.

2nd. Vice-President—Mrs. R. Marshall.

Recording Secretary—Mrs. Ben Goldsmith.

Treasurer—Mrs. Beneth Sewell.

Meets third Friday of each month.

OUACHITA PARISH

Monroe, La.

President—Mrs. J. T. Graves.

1st. Vice-President—Mrs. C. P. Gray.

2nd. Vice-President—Mrs. W. L. Bendel.

Recording Secretary—Mrs L. L. Shlenker.

Corresponding Secretary—Mrs. I. J. Wolff.

Treasurer—Mrs. A. D. Tisdale.

Historian—Mrs. C. H. Hill.

Parliamentarian—Mrs. P. L. Perot.

Publicity Chairman—Mrs. D. T. Milam.

Meets third Wednesday of each month.

JEFFERSON DAVIS PARISH

Jennings, La.

President—Mrs. R. R. Arceneaux, Welsh.

Vice-President—Mrs. L. E. Shirley, Jennings.

Recording Secretary—Mrs. L. E. Shirley, Jennings.

Corresponding Secretary—Mrs. C. A. Martin, Welsh.

Treasurer—Mrs. F. W. Harrell, Jennings.

Press and Publicity—Mrs. C. A. Martin, Welsh.

Meets second Tuesday of each month.

CLAIBORNE PARISH
Homer, La.
President—Mrs. M. J. Rivenbark, Haynesville.
Vice-President—Mrs. J. E. Batchelor, Haynesville.
Secretary-Treasurer—Mrs. H. R. Marlatt, Homer.
Meets second Friday of every other month.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

MEMBERSHIP

Officers of the Medical Societies of Mississippi:
My Dear Doctors:

I wish to call your attention to an article in the Mississippi News Section of the New Orleans Medical and Surgical Journal for October, from Dr. Lippincott. This article contains a compilation of figures showing the members and the eligible doctors for membership in the State Medical Association.

I am sure that you will agree with me that this is an alarming condition so far as organized medicine is concerned. The by-laws of the Mississippi State Medical Association makes it the duty of the president-elect to put on a membership drive. I feel like if we will get busy right now and put this drive on in earnest, we can increase our membership at least twenty-five or thirty per cent.

I am going to propose for your consideration this plan: Immediately, have your medical society to appoint a membership campaign committee, composed of at least two members from each county in your society and then let the members of this committee call in such other men as they may desire to help them to go out after the Brother who is eligible, for membership. Let's make it a personal campaign, similar to the one put on in church drives and political campaigns. I have already started this campaign in the Central Medical Society. The committee has been appointed and we are going to call a meeting of this committee and start the drive right away. We are promising those who come in now, to give them a receipt as of December, for dues to the county and state for 1936. I would suggest that you do the same.

Suppose we have a little competitive contest. Let's see who can gain the greatest percentage of new membrs. What do you say? The fight is on! Let's go!

Sincerely yours,
Harvey F. Garrison, President-Elect,
Mississippi State Medical Association.

DIRECTORY AND CALENDAR MEDICAL SOCIETIES

(Information is not complete. Secretaries of societies are urged to send in full data so that it may be known when the societies of the state meet and who are the officers directing their activities this year).

Adams County Medical Society: E. E. Benoist, Natchez, president; W. K. Stowers, Natchez, secretary. Meets third Tuesday each month, Natchez Hospital, 7:30 P. M.

Amite County Medical Society: C. W. Stewart, Osyka, president; D. H. Thornhill, Crosby, secretary. Meets with Wilkinson County Medical Society, second Thursday each month except January, April, July and October, Field Memorial Hospital, Centerville, 6:00 P. M.

Central Medical Society: W. B. Dobson, Jackson, president; L. W. Long, Jackson, secretary. Meets first Tuesday each month, Robert E. Lee Hotel Roof, Jackson, 6:30 P. M.

Claiborne County Medical Society: E. P. Jones, Hermanville, president; G. W. Acker, Port Gibson, secretary.

Clarksdale and Six Counties Medical Society: J. L. Nichols, Alligator, president; N. C. Knight, Clarksdale, secretary. Meets fourth Wednesday in March and second Wednesday in November. Elks Club, Clarksdale, 2 P. M.

Clarke-Wayne Counties Medical Society: W. P. Gray, Waynesboro, president; Albert Hand, Shubuta, secretary.

Delta Medical Society: P. G. Gamble, Greenville, president; F. M. Acree, Greenville, secretary. Meets second Wednesday of April and October, rotates through five counties, 2 P. M.

DeSoto County Medical Society: A. J. Weissinger, Hernanda, president; L. L. Minor, Rt. 4, Memphis, secretary.

East Mississippi Medical Society: H. L. Arnold, Meridian, president; L. V. Rush, Meridian, secretary.

Franklin County Medical Society: C. E. Mullin Bude, president; L. Costley, Meadville, secretary. Meets first Tuesday of January, April, July and October, Meadville, 2:00 P. M.

Hancock County Medical Society: A. P. Smith, Bay St. Louis, Secretary.

Harrison County Medical Society: G. F. Carroll, Biloxi, president; H. K. Rouse, Lyman, secretary.

Homochitto Valley Medical Society: Lucien S. Gaudet, Natchez, president; Homer A. Whittington, Natchez, secretary. Meets second Thursday of January, April, July and October.

Issaquena-Sharkey-Warren Counties Medical Society: F. Michael Smith, Vicksburg, president; Leon S. Lippincott, Vicksburg, secretary. Meets second Tuesday each month, Elks Club, Vicksburg, 7:00 P. M.

Jackson County Medical Society: J. M. Lockard, Pascagoula, president; R. G. Lander, Pascagoula,

secretary. Meets second Thursday of March, June, September and December, Jackson County Hospital, Pascagoula, 7:00 P. M.

Jefferson County Medical Society: W. T. Harper, Fayette, secretary.

Jones County Medical Society: A. J. Carter, Ellisville, president; Eugene Bush, Laurel, secretary. Meets first Thursday each month, South Mississippi Charity Hospital, Laurel, 6:30 P. M.

LeFlore County Medical Society: Meets second Monday each month, Greenwood-LeFlore Hospital, Greenwood, 8.00 P. M.

North Mississippi Medical Society: W. W. Phillips, Oxford, president; A. H. Little, Oxford, secretary.

Northeast Mississippi Thirteen Counties Medical Society: S. R. Deanes, West Point, president; A. J. Stacy, Tupelo, secretary.

Pike County Medical Society: H. L. Bauer, McComb, president; Elise Rutledge, McComb, secretary. Meets first Tuesday each month, McComb, 6:30 P. M.

South Mississippi Medical Society: J. Gould Gardner, Columbia, president; F. T. Bower, Hattiesburg, secretary. Meets second Thursday of September, December, March and June. Usually alternates Hattiesburg and Laurel, 3:00 P. M.

Stone County Medical Society: S. E. Dunlap, Wiggins, president; Earl W. Green, Wiggins, secretary. Meets with Harrison-Stone-Hancock Counties Medical Society.

Tate County Medical Society: W. D. Smith, Senatobia, president; J. Sidney Eason, Coldwater, secretary. Meets second Wednesday each month, Senatobia.

Tri-County Medical Society. H. R. Fairfax, Brookhaven, president; R. B. Zeller, Hazelhurst, secretary. Meets second Tuesday of March, Copiah-Lincoln Junior College, Wesson; June, Walthal Hotel, Tylertown; September, Riverside Hotel, Monticello; December, Whitworth College, Brookhaven, 12:30 P. M.

Wilkinson County Medical Society: S. E. Field, Centreville, president; E. M. Butler, Centreville, secretary. Meets Thursday, each month, except January, April, July and October. Field Memorial Hospital, Centreville, 6:00 P. M.

Winona District Medical Society: P. B. Brumby, Lexington, secretary.

MISSISSIPPI HOSPITALS
CALENDAR OF STAFF MEETINGS

ANDERSON INFIRMARY: Second Firday, each month, 6:00 P. M.

BILOXI HOSPITAL: First Friday, each month, 7:30 P. M.

CLARKSDALE HOSPITAL: Second Wednesday, each month, 1:30 P. M.

GEORGE C. HIXON MEMORIAL HOSPITAL: First Monday each month.

GREENWOOD LEFLORE HOSPITAL: Second Monday, each month, 8:00 P. M.

HOUSTON HOSPITAL: Last Thursday, each month, 7:30 P. M.

JACKSON COUNTY HOSPITAL: Second Thursday, each month except July and August, 7:00 P. M.

JACKSON INFIRMARY: Last Tuesday, each month, 6 P. M.

MERIDIAN SANITARIUM: Second Thursday, each month, 6:30 P. M.

MISSISSIPPI BAPTIST HOSPITAL: Third Tuesday, each month, 6:30 P. M.

NATCHEZ SANATORIUM: Second Tuesday, each month, 7:00 P. M.

NORTHEAST MISSISSIPPI HOSPITAL: First Monday, each month, 7:30 P. M.

RUSH'S INFIRMARY: Second Thursday, each month, 7:00 P. M.

SOUTH MISSISSIPPI INFIRMARY: Last Thursday, each month, 5:00 P. M.

U. S. VETERANS HOSPITAL, GULFPORT: Every Monday, Tuesday, Wednesday and Thursday, 10:45 A. M.

VICKSBURG INFIRMARY: First Wednesday, each month, 7:00 P. M.

VICKSBURG SANITARIUM: Tenth or week of the tenth, each month, 6:30 P. M.

WINONA INFIRMARY: First Thursday, each month, 7:30 P. M.

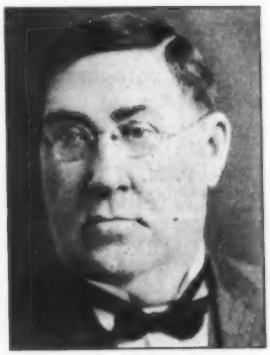
COMMUNITY HOSPITALS

A meeting of the Committee on Community Hospital Legislation of the Mississippi State Medical Association and of the Committees on Legislation and Community Hospitals of the Mississippi State Hospital Association was held at the Robert E. Lee Hotel, Jackson, October 10, with the following present: Dr. J. R. Hill, Corinth, president, Mississippi State Medical Association; Dr. H. A. Gamble, Greenville, president, Mississippi State Hospital Association; Dr. R. B. Caldwell, Baldwin; Dr. C. M. Speck, New Albany; Dr. E. R. Nobles, Rosedale; Dr. V. B. Philpot, Houston; Dr. M. L. Flynt, Meridian; Dr. R. W. Smith, Canton; Dr. J. Gould Gardner, Columbia; Dr. George E. Adkins, Jackson; Dr. A. B. Harvey, Tylertown; Dr. R. M. Stephenson, Lexington; Dr. F. M. Acree, Greenville; Miss Annie L. Hollum, Brookhaven; Dr. W. H. Anderson, Booneville; Dr. M. D. Ratcliff, McComb; Dr. W. H. Brandon, Clarksdale; Mrs. J. Oridge, R. N., Lexington; Mrs. E. M. Bee, Brookhaven; Dr. Leon S. Lippincott, Vicksburg. Proposed laws to provide for community hospitals and for legislation to protect hospitals were thoroughly discussed and plans of action made.

At the invitation of the State Budget Commission, the committees appeared before Hon. Alfred Stone, chairman, and R. J. Folse, executive secretary, at the State Capitol, explained the purposes

and desirability of a more equitable distribution of state funds for hospitalization of indigent sick. The committees then specifically requested that the budget commission include in the budget to be presented to the incoming legislature $600,000 (15 cents per capita) for the biennium, to cover the entire cost to the state of hospitalization for the indigent sick. The committees were courteously received.

An executive committee to consist of the chairman and one other member from each of the three committees represented, with the presidents of the Mississippi State Medical Association and Mississippi State Hospital Associaton, will work out the details of the proposed legislation.



THEOPHILUS ERSKINE ROSS, M. D.

Dr. T. E. Ross was born in Philadelphia, Mississippi, February 18, 1864. His early boyhood days were spent on a farm in Sandtown, Neshoba County, and he attended the rural school near his home. His ambition to study medicine was realized in 1886 and he was graduated from the College of Physicians and Surgeons at Baltimore, Maryland, March 16, 1888. This College later was merged with the University of Maryland. He practiced medicine in his home county for four years and then moved to Hattiesburg in 1892. This same year he married Miss Dora Mars of Neshoba County, and of that union, five children are living.

Dr. Ross was at all times actively identified with the professional, civic and religious activities of Hattiesburg and the State. He was active in Masonic work and was a member of all Masonic bodies in Mississippi. He was Past Master of his home lodge. He was also a charter member of the Leaf River Camp of the Woodmen of the World, and was elected as First Counsel Commander.

At the time of his death, Dr. Ross was chairman of the Board of Deacons of the First Baptist Church and president of the Board of Trustees of the Mississippi Woman's College. This latter office he had held since Mississippi Woman's College was founded. He was also college physician during this entire period. He was instrumental in securing the location of State Teachers College in Hattiesburg, and with others, donated the site for it.

Dr. Ross was a director of the First National Bank, president of the Ross Company, and was connected with various other organizations. A pioneer in the hospital business in Hattiesburg, he opened a small institution in March, 1900. Later the Gulf and Ship Island Railroad Employees Hospital was built and operated under his supervision for several years. Ownership of the institution passed to him, he changing the name to the Hattiesburg Hospital and continued to operate that institution until 1918, when it passed into the hands of the King's Daughters. In turn, it became the property of the Methodist Conference, which razed the old building and constructed a most modern institution on the same site, known as the Methodist Hospital. He retained an active connection as visiting surgeon.

Dr. Ross was a member of the South Mississippi Medical Society, the Mississippi State Medical Association, and the American Medical Association. From 1907-08 he served as councilor from his district. He was past president of the South Mississippi Medical Society and was president of the Mississippi State Medical Association for 1926-27. He served as delegate to the American Medical Association in 1927. He also served as a member of the Mississippi State Board of Health from 1908 to 1916. He was a Fellow of the American College of Surgeons from 1914 to his death.

He was for many years chief surgeon of the Gulf and Ship Island Railroad Company and chief surgeon for the Mississippi Central Railroad Company from its organization. He was also chief surgeon of the Bonhomie & Hattiesburg Southern Railroad Company, surgeon for the Newman Lumber Company from its organization and for the Hercules Powder Company since its entry into Mississippi.

Dr. Ross died at his home on the morning of September 29, 1935, after a terminal illness of two months. He was seventy-one years of age.

DEATHS OF MISSISSIPPI PHYSICIANS

Dr. B. F. Hand, Waynesboro, September.

Dr. T. E. Ross, Sr., Hattiesburg, September.

Dr. L. S. Pearce, Falkner, September.

Dr. Julius Crisler, Jackson, September.

Dr. T. D. Hall, Saulsbury, Tennessee, (formerly of Raymond).

STATE BOARD OF HEALTH

On September 21, Dr. Underwood addressed the Washington County Health Council on the sub-

ject of "Possibilities and Responsibility for Health." This organization is composed of interested citizens in the county whose work it is to promote public health activities. Many of the counties having full-time health departments have active health councils which are of inestimable assistance.

On September 24, Dr. Underwood spoke to the Lions Club at Tupelo.

The State Tuberculosis Association held its annual state-wide meeting at the Robert E. Lee Hotel, Jackson, September 25.

On September 29, Dr. Underwood spoke at the Warren Memorial Church, Louisville, Kentucky. There were 1500 in attendance. This is a meeting preliminary to the Kentucky State Medical Association which begins September 30. Dr. Philip Barbour of the League of Christian Physicians invited Dr. Underwood to make the annual address. While in Kentucky, Dr. Underwood will remain for the meeting of the State Medical Association and visit some of the counties carrying on public health programs of special interest.

Jose Aguero, young administrator of the central health offices of Cuba, visiting Jackson to study the organization and program of the Mississippi State Board of Health said before leaving that he would be able to introduce sanitation into the Cuban homes, but screening never. Although Cuba is noted for the size of its mosquitoes, and although there are annually about 10,000 cases of malaria on the island, the people will not tolerate screens, he said.

Mr. Aguero, who was brought to the States through the cooperation of the Rockefeller Foundation, spent a week in Mississippi. Mississippi and Cuban health problems are quite similar—especially the typhoid and malaria problems.

On September 28, Dr. Felix J. Underwood received notice from the Department of State, Washington, that President Roosevelt had appointed him as a delegate from the United States to the Seventh Pan American Child Congress to be held in Mexico City from October 12 through the 19. Dr. Underwood will speak to the Congress on the subject: *"The Organizatiin of Rural Child Health Service."* The talk had already been submitted as requested for translation into two other languages.

DEAFNESS

Dr. Felix J. Underwood, executive officer, Mississippi State Board of Health has called the attention of the doctors of the State to an interesting item that appeared in the news magazine "TIME" under date of March 11, 1935. It follows:

QUININE AND DEAFNESS

Of the 10,000,000 deaf people in the U. S., 3,000,000 are children. Of the 3,000,000 deaf children, almost 2,000,000 were born deaf. In the South twice as many congenitally deaf children are born in the last six months of a year as are born in the first six months.

In the second half of each year malaria is rife in the South. Quinine is the specific drug which victims of malaria take to combat that distressing disease. And quinine has a special destructive effect on the auditory nerves.

Therefore, is it possible that quinine, seeping into the blood of the fetus when a pregnant woman with malaria doses herself, is responsible for the major part of the congenital deafness in the U. S.?

Last week Otologist Hermon Marshall Taylor of Jacksonville, Fla., president of the Southern Medical Association, resoundingly declared that this malaria-quinine-deafness sequence was a fact. And in a Southern Medical Journal article he gave this strong advice to the ear specialists of the nation:

"That the otologist has practically ignored the possible significance of prenatal medication in infant deafness may be due to to the difficulty of early diagnosis. A child must be 2½ to 3 years old before a diagnosis of nerve deafness can be made and by that time the prenatal history has generally been dismissed. The usual history consists principally of whether or not there has been a family history of deafness, consanguinity, hereditary syphilis or meningitis. It seems, however, that inquiry regarding the drugs given the mother during pregnancy may yield information quite as important as whether the patient had a great uncle or a second cousin who was deaf. If a large number of otologists will in future, when dealing with cases of children with nerve deafness, be careful to include in the usual questionnaire the history of drugs administered to the mother during pregnancy, there may in due time be collected sufficient data to establish prenatal medication as an etiologic factor in such cases as come under the broad classification of congenital deafness."

TUBERCULOSIS AESTRACTS

NATIONAL TUBERCULOSIS ASSOCIATION

The general practitioner is often in doubt as to whether a given case of tuberculosis would benefit by surgery and if so, what particular procedure to advise. Each case, of course, requires individual judgment, but it is only by studying the outcome of a large number of cases that a general appraisal of the several surgical procedures can be made.

RESULT OF SURGICAL TREATMENT

Surgical treatment of pulmonary tuberculosis includes all forms of mechanical collapse with the exception of that produced by pneumothorax. Other forms of surgical treatment still in the experimental stage are not considered in this study.

In trying to evaluate results of surgical treatment for pulmonary tuberculosis a diversity of

variable factors may vitiate the significance of comparative statistics; for example, none of the various surgical procedures can be said to be standardized with respect to their technical aspects, the indications for the different procedures vary greatly and the time element is important. Nevertheless the statistics compiled as in any other field of clinical medicine, furnish a perspective and means of plotting the course of future trends.

The study is based on the author's experience with a series of 200 thoracoplasty cases, and on 4,535 from the literature. Statistical tables in the article support the author's summary, which is as follows:

THORACOPLASTY

From one-quarter to nearly one-half the deaths following thoracoplasty within a period of five to ten years occur within the first eight weeks. The author's mortality in this period was 10.3 per cent; the combined mortality among 2,810 cases was 10.5 per cent. The individual variations among the series were from 3 to 20 per cent. The most frequent cause of death in the author's experience was cardiac failure and pulmonary complications. In a combined group of 230 deaths, death was reported to have been due to shock in 8 per cent, heart failure in 18 per cent, and pulmonary complications or extension of tuberculosis in 34 per cent. The mortality rate decreases progressively after the first few weeks. From one-half to two-thirds die during the first 6 months.

Among 3,762 patients followed for from one to twelve years after operation, 35.3 per cent were symptom—and bacillus—free and were able to work; 22.1 per cent were improved and able to do some work; 5.5 per cent were not improved or were made worse by the operation; 3.5 per cent were not traced; and 33.6 per cent were dead at the time of the report. A large proportion of the patients are rehabilitated to the extent that they are able to return to their former stations in life an to resume their former occupation or activities. Many women marry, and there is record of 22 who have borne children since their operation, usually against advice.

The variation in extent of partial thoracoplasty and relatively limited number of any one type followed for one or more years make any estimate of enduring results from them inconclusive. Among 236 collected cases followed for two years or more, 87.5 per cent were living, and 12.5 per cent were dead. Of the living, 53.4 per cent were reported as clinically well; of the deaths one-half occurred during the first eight weeks after operation.

PNEUMOLYSIS AND PLOMBAGE

Of 307 cases observed during several months to several years, 53.4 per cent were improved, and 44.3 per cent were dead. Of the deaths, 40 per cent occurred during the first 8 weeks after operation.

PHRENICOEXAIRESIS AS AN INDEPENDENT PROCEDURE

This operation is performed for such a variety of indications and the chance of later recurrence of the disease following so limited a collapse is so considerable that prolonged observation of the patients in any one group will be necessary for a determination of late results. The result so far reported are conflicting, but a considerable number of enduring clinical cures are recorded.

A combination of methods has extended indications to include cases with bilateral lesions and has improved results.

CONCLUSIONS

The surgical treatment of pulmonary tuberculosis offers to properly selected patients not suitable for pneumothorax therapy the best if not the only prospect of a complete arrest of the disease and, when that cannot be achieved, a relief of symptoms and prolongation of life.

The proper selection of the patients and of methods and of the most opportune time for operation demands the closest collaboration of the phthisiotherapist and surgeon.

From one-quarter to one-half of the total deaths during the first ten years following thoracoplasty occur during the first 8 weeks and death is due largely to shock, cardiac failure, and pulmonary complications, all in considerable measure preventable through preoperative preparation, through operation graded into stages according to the patient's condition, and watchful prolonged post-operative supervision. Such measures will extend indications for operation. Even though by doing so the total mortality is not reduced, more patients otherwise hopeless are given the chances it affords.

Deaths after the first 8 weeks are due largely to extension of the tuberculosis, in some measure preventable through primary adequate collapse, through secondary additional collapse or compression for recurrence, and through reasonable care of the health.

Adequate application of the method or combination of methods indicated, early in the disease before extensive destructive changes in the lung and before secondary visceral damage has occurred, will result in a minimal mortality, a maximal conservation of respiration function, and in the greatest possible measure of rehabilitation.

SICKNESS INSURANCE

In an article, "Medical Economics—The Coordination of Resources for Medical Care in the District of Columbia," recently issued by the Medical Society of the District of Columbia, under the heading of "The Evils of Sickness Insurance," appears quotations from a masterly article on the subject by Gustav Hartz, eminent German labor

economist. In the present clamor for sickness insurance the observations are worthy of special study and thought and discussion by every Mississippi physician. The quotations follow:

"The uneveness in the business level, the seasons, holidays, a change of work, failing health and many other things contribute to bring about a noticeable change in morbidity. Since the sickness insurance has been in effect, the average number of days of incapacity to work owing to ill-health has risen from 5½ to 28 days, although health in general has considerably improved. In the strict sense of the word sickness insurance is no insurance. From a technical and mathematical standpoint it is also quite unsettled in view of the moral hazard.

"This is clearly seen when considering that the individual insurance case, whether due to illness or unemployment, can be willfully caused or extended. Where is the border line between illness and health, between mere indisposition and illness, between dread of getting ill and bluff? And if the insured person is really ill, where is the border line between ability or disability to work? How can the duration of an illness be fixed?

"Illness is the most incalculable risk in existense.

"Even the doctor is mostly or at least frequently, unable to diagnose correctly and to distinguish pretenders and hypochondriacs from really sick people, or rather to tell whether a man is fit to work or not.

"Dread of illness obsesses most people, and this has been pressed into a system 'illness made easy' by which the will to be well is strangled. The doctor is consulted a dozen times where once would be sufficient—the insurance pays. The prescribing of medicine, bandages, etc., is desired. When they have been obtained they lie about until they are no longer fit to be used and must be thrown away—the insurance pays. Besides, it is nice to get something in return for the premiums paid year in and year out. Excessive "overdoctoring' is the result, and fear of illness shakes the will for recovery—the best aid to health. Pretenders and hypochondriacs are bred, and the use of medicine becomes excessive. The advertising of certain remedies and cures created a medicine craze. A few years ago it was ascertained that 4 times as much money was used for doctors' fees and medicines for 35,000,000 of people in insurance as for 30,000,000 of uninsured. This was stimulated unthinkingly by a desire to get insurance money. An actual run on the sickness insurance allowance set in.

"At first sight it seems improbably and paradoxical that a desire to obtain insurance money that scarcely amounts to half the sum of wages should arise. It appears impossible that someone should, unless compelled by illness, forfeit his wages to get an allowance of half the amount. Unfortunately, life does not run a straight course between health, working ability, working possibilities on one hand, and illness and disability on the other, nor do people's minds and actions.

"In millions of cases, for example, when wages are being decreased, when work is scarce and work hours in consequence shortened, when there are fewer shifts, many holidays, work restrictions at certain seasons, outdoor work in frosty weather, 50 per cent of the wages is welcome. One objects to the work he is given, another does not feel like working, a third's time is taken up by some family matter for which he would have to take leave of absence and forfeit his pay. In such cases the sickness insurance comes in handy. Besides this, there is also deceitful trickery. Fictitious contracts are made, doctors are induced to prescribe medicine, and instead of the medicine, toilet soap and scent, etc., are handed out by the pharmacies.

"How can this possibly be done, some ask? Those who consult doctors are supposed to be ill. That is all very well if the doctors were always able to detect whether the statements of the patients were correct. Often a diagnosis is impossible. He who would like to prove this should go to 10 doctors, complain of headache, pain in the limbs, rheumatism. All 10 will start a treatment for headache or rheumatism, without discovering that nothing whatever is the matter with the patient.

"Besides that, all doctors are glad to get new patients, for do they not mean their livelihood?

"Medical science has become a cheap article, and doctors have given up conscientious treatment. The genuine patient is neglected, is not given the necessary care.

"The greater the mass consultations, the lower are the doctor's fees. The amounts paid to panel doctors for each single case are deplorable. They are, therefore, compelled to resort to mass practice.

"The sickness insurance unrolls the entire problem of the medical man's existence. Mass demand compelled a limitation in the use of medicines. Doctors must not prescribe what they consider good for the patient, they only being allowed to give remedies entered in a book of medical regulations for insurance purposes.

"The insured workman becomes a second-class patient.

"The genuine patient is justly indignant to find that the existence of his illness is doubted, and that he who has always paid his premiums regularly and has a right to demand conscientious attendance, is considered a cheat.

"This system, together with the rest of the bureaucratic apparatus, has wedged itself between doctor and patient, completely destroying the patient's confidence in his physician, which greatly retards all recovery."

ADAMS COUNTY MEDICAL SOCIETY

The regular monthly meeting of the Adams County Medical Society was held September 17, at the Natchez Charity Hospital with nine members in attendance.

Dr. R. D. Sessions read a very interesting paper on "Pancreatic Cysts and Pancreatic Abscess" with report of a case. Dr. L. S. Gaudet presented a case of central scotoma.

W. K. Stowers,
Secretary.

CENTRAL MEDICAL SOCIETY

The regular monthly meeting of the Central Society was held Tuesday night, October 1, at 6:30 o'clock at the Robert E. Lee Hotel. A meeting of the Executive Committee at 6:00 o'clock in the Board of Directors' room preceded the dinner.

The program committee met after the regular session.

A program with several important subjects and case discussions was presented to a full attendance and several visitors. Among these visiting doctors we had Dr. Hill, president of the Mississippi State Medical Association.

Dr. H. F. Garrison, Sr. delivered a case report on "Purpura Hemorrhagica" followed by discussions by Drs. D. W. Jones, H. F. Garrison, Jr., G. W. Owen, and H. R. Shands.

A case report on "Cerebellar-Pontine Angle Tumor" was given by Dr. Lee Lipscomb, Jr., followed by discussions by Drs. S. Van Dyke Hagaman, and A. G. Wilde.

Dr. H. R. Shands delivered a paper on "New Therapeutic Procedures Recently Observed," which was very interesting and illuminating.

Dr. R. B. McLean gave a brief and interesting case report with presentation of a patient on "Aneurysm of the Femoral Artery, Treated by Obliterative Endo-Aneurysmorrhaphy."

Dr. Garrison stressed the importance of the membership for the coming year and committees were selected to aid in increasing the membership.

Dr. Noblin brought the meeting to a close with a brief talk on "Control of Tuberculosis in the White Race Contracted From Our Domestic Servants."

L. W. Long,
Secretary.

DELTA MEDICAL SOCIETY
SEMI-ANNUAL MEETING, OCTOBER 9, JUNIOR COLLEGE, MOOREHEAD
PROGRAM

Meeting called to order at 2:00 P. M. by the president, Dr. P. G. Gamble.

Business Session.

Scientific Session:

Comatose Malaria.—Dr. W. S. Taylor, Isola.

Malaria.—Dr. I. I. Pogue, Scott.

Hydatiform Mole, with case report.—Dr. W. B. Dickens, Greenwood.

The Relationship of the County Health Officer to his Community.—Dr. H. B. Cottrell, Indianola.

The Changes in the Eye Grounds in Systemic Disease.—Dr. L. C. Davis, Greenville.

Treatment of Fibroid Tumors.—Dr. Carl Crutchfield, Nashville, Tenn.

Social: 7 P. M., Barbecue at 4 Mile Lake.

F. M. Acree, Greenville,
Secretary.

HOMOCHITTO VALLEY MEDICAL SOCIETY

The third quarterly meeting of the Homochitto Valley Medical Society was held in Natchez, Thursday, October 10. The following officers were elected for 1936:

President, Dr. Lucien S. Gaudet, Natchez.

Vice-President, Dr. Francis Dixon, Adams County.

Vice-President, Dr. W. R. Brumfield, Amite County.

Vice-President, Dr. C. E. Mullins, Franklin County.

Vice-President, Dr. W. T. Harper, Jefferson County.

Vice-President, Dr. C. E. Catchings, Wilkinson County.

Secretary-Treasurer, Dr. Homer A. Whittington, Natchez.

Two very interesting papers were presented:

Dr. J. S. Ullman, Menstruation and the Hormones.

Dr. H. A. Whittington, Essential Hypertension.

Both papers were freely discussed by the physicians present.

Lucien S. Gaudet.

ISSAQQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

A regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Elks Club, Vicksburg, Tuesday, October 8. After a supper served at 7 P. M., the meeting was called to order by the president, Dr. F. M. Smith, with seventeen members and two guests present.

A committee of graduate nurses of Vicksburg appeared before the Society to ask cooperation in securing the 1936 meeting of the Mississippi State Nurses Association for Vicksburg. The Society voted to extend an invitation for the meeting and to aid in every way possible.

Scientific program:

Radiology: Dr. G. M. Street.

1. The Physician's Daily Obligation to Educate the Public About Cancer.—Dr. J. A. Beals, Greenville.

Discussed by Drs. N. B. Lewis, B. B. Martin, Jr., L. S. Lippincott, W. K. Purks, and G. M. Street. Dr. Beals closed.

2. Improved Methods in Roentgen Therapy of Malignant Diseases.—Dr. A. Street (Read by Dr. G. M. Street).

Discussed by Drs. Beals and W. E. Johnston. Dr. G. M. Street closed.

3. Diagnosis In Some Common Joint Conditions.—Dr. W. E. Johnston.

Discussed by Drs. W. C. Pool and R. A. Street, Jr. Dr. Johnston closed.

The Committee on Public Health and Legislation reported on resolutions having to do with malpractice suits as adopted by the Ceneral Medical Society, and presented substitute resolutions. The substitute resolutions were tabled for study and consideration at the next meeting.

The matter of mosquito eradication was discussed and the committee on malaria consisting of Drs. B. E. Martin, S. W. Johnston, and L. S. Lippincott was continued.

It was reported that at the request of the Society the Woman's Auxiliary to this Society had appointed a committee on Malaria, consisting of Mrs. B. B. Martin, Mrs. F. M. Smith and Mrs. D. A. Pettit, to cooperate with the general committee.

The by-laws of the society were amended as regards the reinstatement of former members dropped for non-payment of dues.

Plans were made for the annual meeting on December 10.

A letter was read from Dr. Harvey F. Garrison, president-elect of the Mississippi State Medical Association and in charge of organization, asking for the appointment of a committee to consist of two members from each county represented in the Society to secure the membership of all eligible physicians. The president appointed this committee as follows: Issaquent County, Drs. W. H. Scudder and T. W. Huey; Sharkey County, Drs. H. S. Goodman and W. A. Smith; from Warren County, Drs. H. H. Johnston and B. B. Martin, Jr.

The next meeting of the Society will be held on November 12. The subject will be internal Medicine and the committee in charge consists of Drs. W. K. Purks, L. J. Clark, W. E. Johnston, H. S. Goodman and W. H. Scudder. The program as prepared will be as follows:

1. A Comparison of the Gross Anatomical Changes of Rheumatic Heart Disease With Those Found in Other Forms of Heart Disease.—Dr. R. H. Potts, New Orleans.

Discussion opened by Drs. L. S. Lippincott and W. P. Robert.

2. The General Management of Rheumatic Heart Disease.—Dr. L. J. Clark, Vicksburg.

Discussion opened by Drs. P. S. Herring and W. E. Johnston.

3. Some Special Problems of the Diagnosis and Treatment of Rheumatic Heart Disease.—Dr. W. K. Purks, Vicksburg.

Discussion opened by Drs. L. J. Clark and W. H. Parsons.

NORTH MISSISSIPPI MEDICAL SOCIETY

A quarterly meeting of the North Mississippi Medical Society was held at Oxford, October 18 at the Graduate Building, University of Mississippi, beginning at 2:00 P. M.

The program included:

1. Invocation.—Rev. John Stephens.

2. Minutes of Preceding Meeting and Other Business.

3. The Management of the Patient with Heart Failure.—Dr. Otis S. Warr, Memphis, Tenn.

4. Some Aids in Kidney Disease.—Dr. Leon S. Lippincott, Vicksburg.

5. Football Injuries of the Knee.—Dr. Willis Campbell, Memphis, Tenn.

Dr. W. W. Phillips, Oxford, president, presided.

Included in those attending were doctors from the DeSoto and Tate County Medical Societies and medical students from the University of Mississippi Medical School. Dr. J. G. Gardner, Columbia, president of the South Mississippi Medical Society was a guest. A number of doctors from over the state having sons and daughters attending the University took this occasion to attend a medical society meeting while in Oxford attending the "Home Coming" exercises at "Ole Miss," October 19.

A. H. Little,
Secretary.

SOUTH MISSISSIPPI MEDICAL SOCIETY

The South Mississippi Medical Society may justifiably regard with pride the scientific programs of its recent meetings. Teeming with interest and laden with medical knowledge the essays and discussions have been of incomparable excellence. Undoubtedly, the best of all these programs was the last, held at Columbia. Dr. Gardiner, the president of this society was host and arranged for and directed this meeting. We were most highly honored with the presence of the governor-elect of this state and by the mayor of Columbia. Our gratitude to Dr. Gardiner can hardly be estimated.

It is with deepest regret that I mention the passing of undoubtedly the most prominent member of our society. Dr. T. E. Ross has stood for many years as one of the medical landmarks of this part of the state. Always standing for the best in medical achievement and progress he has been a pillar of profesional accomplishment. It is hard and will ever be, for his host of friends to reconcile themselves to his absence, but, indeed his spirit will be with us, an example of steadfastness and courage in our difficult work of carrying on in our profession.

F. T. Bower,
Secretary.

WILKINSON COUNTY MEDICAL SOCIETY

The Wilkinson County Medical Society has been organized, its membership including all the doctors of Wilkinson County, Dr. J. W. Brandon, Woodville, Dr. C. E. Catchings, Woodville, Dr. R. J. Field, Centreville, Dr. S. E. Field, Centreville, Dr. G. H. Butler, Centreville, and Dr. Edwin M. Butler, Centreville. The officers are: Dr. S. E. Field, president; Dr. J. W. Brandon, vice-president; and Dr. Edwin M. Butler, secretary and treasurer.

The meetings will be held at the Field Memorial Hospital, Centreville, at six P. M., on the second Thursday of each month—except in the months of January, April, July, and October. In these months, there will be no local meetings, as the members will meet with the Homochitto Valley Medical Society.

It is contemplated that, beginning with our next meeting, the Amite County Medical Society will meet in conjunction with the Wilkinson County Medical Society—the aim being to make our meetings more interesting and instructive by having a larger number meeting together to discuss our local problems.

Edwin M. Butler,
Secretary.

ADAMS COUNTY

I have nothing much to offer for next issue of the Journal, as nothing but the usual routine is going on from day to day.

We are anticipating a nice meeting of the Homochitto Valley Medical Society in Natchez, October 10, with a program on which will be two good papers.

Dr. W. K. Stowers took over the management of Natchez Hospital, as superintendent, September 15.

Dr. and Mrs. Francis Dixon have returned from their honeymoon, and are nicely located in their new home on Clifton Heights.

So long until we get some news .

Lucien S. Gaudet.

CHICKASAW COUNTY

Doctors from this county attending the Northeast Mississippi Thirteen Counties Medical Society quarterly meeting at Greenwood Springs Hotel, Monroe County, included Drs. Hood, Guinn, Baugh, Williams, and Philpot.

Dr. W. C. Walker of Houlka was called to Memphis September 17 on account of the serious illness of his granddaughter.

Dr. and Mrs. V. E. Philpot and family spent a week's vacation recently on the Mississippi Gulf Coast.

Dr. Q. Edward Gatlin representing the Committe on Post-graduate Instruction of the State Board of Health was a visitor in this county recently for the purpose of organizing a post-graduate course in obstetrics. The course will be held at Houston and is designed to serve the physicians of Chickasaw, Choctaw, Calhoun, and Webster counties as well as those of other nearby counties who find it convenient to attend. The course begins at 2:00 P. M.; every other day, the first session being on Monday, November 4.

The physicians of this district feel themselves fortunate to have this postgraduate instruction, the equal of any available anywhere, by Dr. Lapham of the University of Pennsylvania, Philadelphia.

The monthly staff meeting of the Houston Hospital was held on the evening of September 26. Following a delightful meal, Dr. J. Rice Williams gave a paper, "A Few Points about Cancer", and Mr. Q. Edward Gatlin gave an address on the proposed postgraduate course in obstetrics sponsored by the State Board of Health, the Mississippi State Medical Association, Tulane University Graduate School of Medicine, and the Commonwealth fund of New York.

Dr. Sid Evans, dean of Chickasaw County physicians, is confined to his bed with a severe cold. Doctor Evans, who is 78 years of age, began the practice of medicine in Houston in 1880. He typifies the beloved family physician and is still in active practice where he began 55 years ago.

W. C. Walker,
(Per Douglas D. Baugh).

COAHOMA COUNTY

Dr. E. LeRoy Wilkins has just returned from the American Legion Convention in St. Louis. He reports a fine time was had by all. Dr. Wilkins will also be feature speaker on the American Legion convention program in Indianola, October 9.

Dr. I. W. Barrett was a business visitor in Memphis recently, where it is said that he attended strictly to business.

Dr. T. M. Dye has been out in the woods giving the squirrels "fits" several times since the first of October. He apparently is well versed in the science of squirrel hunting.

Dr. W. S. Slaughter attended the Cotton Carnival recently held in Clarksdale, and he didn't miss a thing, that was going on.

Dr. I. P. Carr, prominent Clarksdale physician, showed us how it was done by putting on one of the most outstanding dog shows ever held in the State of Mississippi in conjunction with the Cotton Carnival. Dr. Carr is president of the North Mississippi Kennel Club.

Dr. N. C. Knight, director of the Health Department, was a business visitor to Jackson, during the month.

Miss Josephine Porter, Como, has been added to the staff of the Health Department as dental hygienist for the next six months.

Visitors to the Health Department during the month included Dr. Parker, Mr. Ed Johnson, Mr. Ledbetter, Miss Gladys Eyrich, Miss Ora E. Phil-

lips, of the State Board of Health, and Dr. T. Paul Haney, Jr. and Mrs. Ella M. Sayles of the Pike County Health Department at McComb.

Dr. S. D. Robinson and other physicians of this county are planning to attend the meeting of the Delta Medical Society in Moorhead, October 9.

Dr. D. H. Raney, Mattson, and Mrs. Raney visited relatives in Meridian during September.

It grieves me very much to have to report the death of one of our fellow-workers, Dr. J. W. Lockhart, who was located at Sherard. Dr. Lockhart spent the last few months with his children in Greenville and died there October 5.

N. C. Knight.

DESOTO COUNTY

Dr. William F. Rhodes, Capleville, Tenn., died September 25, 1935, at the home of his brother, Dr. J. A. Rhodes, Horn Lake.

Dr. Rhodes was born in Guntown, February 22, 1878. He was a man of integrity and was respected by all who knew him. He at one time practiced medicine at Wall, Savage and Horn Lake, but for past fifteen years has been located at Capleville. A good part of his clientele was from this county. Dr. Rhodes was a member of the Masonic Order.

He is survived by three brothers and three sisters. Two of his brothers are Drs. J. A. Rhodes, Horn Lake and Dr. M. B. Rhodes, Guntown. His many friends extend their sympathy to his bereaved brothers and sisters.

Dr. Richard Clinton Bunting, nationally known neurologists and for twenty-one years one of the most eminent members of the Medical profession in Memphis, died at his home, October 1, 1935.

The malady which proved fatal first attacked Dr. Bunting last April. Six weeks ago his condition became serious and a month ago he was taken on a special train to Johns Hopkins Hospital, Baltimore. Following treatment and surgery there he was brought back home. Despite an immediate rally, Dr. Bunting's strength failed after his return. Carcinoma was given as cause of death.

Dr. Bunting was a gentleman and ranked high in his profession. He was familiar to those who attended the Mid-South Medical Assembly.

When a physician takes a vacation his medical friend who looks after his patients in his absence often resents being called the 'assistant.' The relieving doctor would prefer to be known as colleague or coadjutor or substitute. An old lady recently added a new synoym when she announced that she was being treated by her own physician's 'accomplice'.

Drs. D. C. Funderburke, Olive Branch, and J. M. Wright, Hernando, report being busy in their work and collections are fair with the prospects brighter.

In the last issue of the Journal in the Mississippi State Medical Association news under the head of Membership, DeSoto county is listed with 12 eligible and eight members. The last statement is correct but we have only 10 eligible which gives an 80 per cent membership. Prior to two months ago there were two worthy men who were M. D's. but who have not practiced in many years—altogether ineligible.

A similar condition exists in Tate County as it does in the North Mississippi Medical Society.

However, we will exert every effort to make the Second Councillor District the first in membership and in matters that relate to our State Association and organized medicine.

L. L. Minor.

FRANKLIN COUNTY

The doctors of Franklin County met October 1 in their regular quarterly meeting, at the office of Dr. C. E. Mullins, Bude. Those present were: Mullins and McGehee of Bude, Costley of Meadville, and Towns of Quentin.

Officers for 1936 were elected as follows:

C. E. Mullin, Bude, president.

J. C. McGehee, Bude, vice-president.

L. Costley, Meadville, secretary and treasurer.

S. R. Towns, Quentin, was elected delegate to the State Medical Association.

After serving several years as superintendent and chief surgeon for the Charity Hospital at Natchez, Dr. C. A. Everett has returned to Bude where he expects to resume his practice.

S. R. Towns.

HINDS COUNTY

The Central Medical Society is putting on an active drive for new members. We hope to bring the boys in.

Dr. J. R. Hill, president of the Mississippi State Medical Association, is in Jackson attending the Legislature and was a welcome guest at the meeting of the Central Medical Society.

We are welcoming two new ear, nose and throat specialists. Dr. Dobson's associate, Dr. F. D. Hollowell, is a native of Yazoo City; A. B., Mississippi College; M. D., University of Virginia; interned at New York, Postgraduate. Dr. Norman Applewhite, the son of the late Dr. Applewhite of Jackson, was formerly associated with the late Dr. Lynch of New Orleans. He has opened offices in the Standard Life Building. Dr. Applewhite's work is confined to ear, eye, nose, and throat and bronchoscopy. He had extensive training in New Orleans.

Dr. T. E. Wilson has returned from Boston where he spent a month visiting in hospitals and making special studies on heart disease.

Drs. Hand, Long and Wilson have just returned from a fishing trip to Eagle Lake. We hear that they had a great time and really had good luck.

Dr. H. R. Shands is back in active practice. He spent the summer visiting various clinics and medical centers in the east.

Dr. and Mrs. J. P. Wall have just returned from an extended tour of Europe, visiting the International Physiological Congress in Lenningrad, Russia. Dr. Wall states that Jackson's capitol street looks better than anything he has seen in a long time.

Harvey F. Garrison, Jr.

ISSAQUENA COUNTY

The scribe from Issaquena has been taking another vacation. This time, instead of roaming the plains of Texas he has been hunting squirrels in the piney woods of southeast Mississippi. He proved himself a sort of Jonah at this sport, and bagged nothing.

After two or three days he drifted on down to the coast. There he went fishing in Back Bay off Biloxi and Ocean Springs. In consequence he has a fish story to relate. One morning three of us set out in a small bateau and cast anchor on the fishing grounds above the L. & N. Railroad bridge.

They bit fine, and after catching a string of assorted fish, one of the party, who was fishing with a 10 cent line on a cheap reel, hung Leviathan on a small hook. On one occasion some years ago Job expressed his doubts about anyone catching Leviathan with a hook. Secretly I have always agreed with him. The other two of us wound up our lines and stowed our fishin' poles away in the boat to watch the battle. We were more than skeptical about the result. I had read of such, but was a doubting Thomas. After playing his whale skilfully for half an hour, our Mr. Isaac Walton pulled him up to the side of the boat exhausted. Then our Mr. Ed Wurgler woke up and went into action. He deftly reached over the side of the boat, got a deadly tail hold with one hand, and passed his other arm under the fish and lifted it into the boat before one could wink an eye. We did not believe it could be done, but we saw it with our own eyes.

This catch ended our sport for the day. We immediately hoisted anchor, and pulled for the shore. Our fish was a drum, weighed 38 pounds, and measured 42 inches from tip to tip. Believe it or not.

Dr. J. B. Benton, Valley Park, attended the regular fall term of our circuit court in Mayersville on October 7. His friends were pleased to see him so much improved.

Dr. T. W. Huey, Grace, did not venture out to court for fear of being caught up for jury duty.

W. H. Scudder.

JEFFERSON DAVIS COUNTY

In response to your request of recent date, you may mention that we are trying to collect and doing as little practice as we can.

Kenneth Terrell, the son of Dr. and Mrs. G. C. Terrell, Prentiss, has resumed his study of medicine at Tuscaloosa, Alabama.

Rod Jenkins, son of Professor and Mrs. D. R. Jenkins, of the Bassfield Consolidated School, has returned to Tulane where he will graduate in Medicine next June. Rod is one of the Commonwealth Students in the Medical Department of Tulane.

John Scott Berry, son of Dr. and Mrs. W. S. Berry, Prentiss, is specializing in chemistry at the University of Texas and will receive his Ph.D. degree there next year.

Dr. Hutchins, son of Mr. Walter Hutchins, Old Hebron, is doing well with two C.C.C. Camps near Lafayette, La. His headquarters are in Lafayette.

Master Robert E. Blount, Jr., accompanied by his aunt, Miss Ruth Ridgway of Jackson, returned to his father and mother, at Fort Slocum, New York. Dr. Robert Blount is a first lieutenant in the Medical Corps, U. S. Army, and is the son of Dr. E. N. Blount of Bassfield.

Miss Katherine Terrell, daughter of Dr. and Mrs. Terrell, Prentiss, is a student at Bellhaven College, Jackson.

Miss Imogne Blount, daughter of Dr. and Mrs. Blount is in her second year at Whitworth College, Brookhaven.

Dr. H. G. Williams, Dr. L. M. Magee, Dr. and Mrs. Terrell, Prentiss, Dr. and Mrs. Nichols, Carson and Dr. and Mrs. Blount, Bassfield, attended the meeting of the South Mississippi Medical Society at Columbia. The wives were entertained by Mrs. J Gould Gardner in her home while the doctors had their session at the Mation Hotel. At six o'clock the wives and the doctors were served a good dinner at the hotel, the doctors of Columbia bearing the heavy burden.

At the usual recess between the session and the dinner, Dr. Gardner invited the members and visitors to go to the Clinic Hospital, and while there to partake of refreshments ready for them in the rooms of the laboratory department. One doctor seeing tubs of ice and bottles with foreign labels said he though coca-cola was best. A messenger was promptly sent for one. He was satisfied, the others were too.

E. W. Blount.

JONES COUNTY

I want to publicly acknowledge that if we doctors of Mississippi were as faithful in discharging our duties as you are in trying to get us to that we would have a wonderful medical organization.

At a recent meeting the physicians of Jones County organized the Jones County Medical Unit and the following members were present: Drs. R.

H. Carter, H. G. McCormick, J. C. Gatlin, C. E. Armstrong, J. R. Kittrell, J. B. Jarvis, J. K. Oates, L. Golden, E. Bush, W. S. Harper, B. G. Earentine, T. Ramsey, Fridge, Tucker, Joe E. Green, R. T. McLaurin and R. H. Cranford.

The following officials were elected: Dr. R. H. Carter, president; Dr. J. B. Jarvis, vice-president; and Dr. Eugene Bush, secretary. Monthly meetings will be held at the South Mississippi Hospital. Meetings will begin immediately after lunch which will be 6:30. At the last meeting which was October 3 splendid papers were presented by Drs. Kittrell and Gatlin. Dr. R. H. Carter presented two very interesting clinical cases.

The question of an all time county health unit for Jones County was brought up which afforded quite a bit of discussion and it was unanimously voted that Drs. Ricks and Underwood would be invited to attend our next meeting, November 7, at which time a complete discussion will be had as to the ways and means in getting an all time county health unit for Jones County.

The following physicians from Jones County attended the meeting of the South Mississippi Medical Society at Columbia with Dr. Jack Gardner: Drs. J. B. Jarvis, W. N. Blount, Joe E. Green, Tom Ramsey, R. H. Cranford, T. R. Beech, J. R. Kittrell, J. K. Oates, and H. G. McCormick.

The month of September proved to be a great loss to our medical fraternity because of the death of Drs. T. E. Ross, Sr., of Hattisburg and Hand of Waynesboro. Dr. Ross has been one of our most useful medical leaders as well as leader in church and civic affairs. He was past president of the Mississippi Medical Association. Dr. B. F. Hand who has for the past several years been associated with Dr. W. P. Gray of Waynesboro and was very active in the practice of his profession, died suddenly from a heart attack.

Drs. J. K. Oates and B. G. Earentine have been absent from their office for the last four or five days. They have been in Pascagoula swamp. The doctors report a great time fishing and hunting with a crowd of other Laurel folks.

Roland Cranford, son of Dr. R. H. Cranford, recently received his appointment to Annapolis.

Joe E. Green.

LAUDERDALE COUNTY

Dr. H. L. Rush is planning to attend the meeting of the American College of Surgeons which convenes in Los Algeles, California, October 30. He will be accompanied by Mrs. Rush and be absent from the city about three weeks.

Dr. Karl O. Stingily left September 28 for St. Louis Mo., where he will spend ten days or two weeks studying at the Skin and Cancer Clinic. During his absence Mrs. Stingily and little son, Karl, Jr., are visiting relatives in Coffeeville.

We are glad to report that Dr. T. A. Strain is able to be up and out again after being quite ill at his home.

Dr. W. R. Holladay spent the month of August visiting various clinics, most of his time being spent in New Orleans.

Dr. Joe Evans, Gulfport, was in Meridian the latter part of September to visit his mother, Mrs. A. J. Evans.

Dr. Edwin McMorries of the U. S. Navy left Monday for Washington, D. C. after spending ten day in Meridian as the guest of relatives and friends. Dr. McMorries is now stationed at the Naval Infirmary in Washington.

C. J. Lewis.

LAFAYETTE COUNTY

The University of Mississippi School of Medicine opened for the thirty-second session on September 18. A first year class was not enrolled this year.

Dr. and Mrs. B. S. Guyton are spending the month of October on a vacation in California and Western Canada.

Professor J. B. Looper, Ph. D., has a leave of absence from the University of Mississippi School of Medicine for the present session. He is enrolled in the Schol of Medicine of the University of Chicago.

J. R. Simms, Jr.

LEFLORE COUNTY

Mrs. J. E. Dunlap, Schlater, widow of the late Dr. J. E. Dunlap was recently elected president of the Leflore County Unit of the Woman's Auxiliary to the Delta Medical Society.

The Leflore County Medical Society meets each month in conjunction with the staff meeting of the Greenwood Leflore Hospital 8 P. M. second Monday.

Mrs. T. B. Holloman, wife of Dr. T. B. Holloman, Itta Bena, was appointed matron of the freshman domitory, Millsaps College, Jackson, where her daughter, Miss Mary Louise, is attending college.

Mrs. Bessie Barry Kennedy, widow of the late Dr. J. P. Kennedy, has moved to Jackson with her daughter Anne, to make her home.

Mr. Frank Yates, director, municipal swimming pool, last season, left for Philadelphia, September 20, to visit his parents, Dr. and Mrs. Claude Yates, before entering the Medical Department of the University of Tennessee.

Dr. and Mrs. S. L. Lane, Hollandale, visited relatives in Greenwood, September 21.

Dr. and Mrs. L. B. Otken attended the National Convention of the American Legion and Auxiliary at their recent meeting in St. Louis, Mo.

W. E. Denman, Jr., son of Dr. and Mrs. W. E. Denman, is attending the Medical Department of the University of Tennessee, Memphis. His brother,

"Gene" is attending the University of Mississippi at Oxford.

Granville Tabb, son of Dr. and Mrs. W. G. Tabb, is at Mississippi State College.

Miss Marjorie Yates is attending school at Sophie Newcomb, New Orleans. Miss Marjorie is the daughter of Dr. and Mrs. R. B. Yates, Greenwood.

Miss Louise Neilson Sandifer, daughter of Dr. and Mrs. F. M. Sandifer, Greenwood, was married to Mr. William Claude Hicks, Inverness, at the First Presbyterian Church, Greenwood, October 1, at 5 P. M. Dr. Fred Sandifer, Jr., came up from New Orleans to be present at the wedding and serve as one of the groomsmen.

Dr. Robert D. Dickins, Monticello, Ark., son of Dr. and Mrs. W. B. Dickins, Greenwood, will be married to Miss Anne Edwards, daughter of Dr. and Mrs. J. R. Edwards, Monticello, Ark., at Monticello on October 17, 6:30 P. M.

W. B. Dickins.

MONROE COUNTY

This is a wonderful autumn afternoon but I am sad and depressed. At six o'clock Sunday afternoon I received a telegram telling me that Dr. T. E. Ross, Sr., was dead. The telegram should have reached me some hours earlier but for some reason its delivery had been delayed. As soon as the shock passed I expressed a wish to go to my dead friend. Both my splendid girls spoke in unison saying we will go with you. At seven we were on the road. At midnight we reached Meridian and slept or rested till morning—then on to Hattiesburg. I will not attempt to relate the details of the funeral—they were too sacred to expose. I will simply say that I mingled my tears with those of the bereaved family, gazed at the dead face of him whom I have long known and lived, and with bowed head and heavy heart recovered the miles between Hattiesburg and Amory. A man who had been his pastor some years ago pronounced a short but fitting eulogy, one sentence of which would have sufficed. It was this: "He was God's good man." A truer, better friend I never knew. Human life is too short for one man to acquire many such as he. And now he is gone. "Requiescant in pacem."

Now permit me to turn back to thoughts and experiences that are filled with joy and happiness. On Monday afternoon, September 16, I was made very happy by coming into my home of a friend who is a prince among men, and his charming wife, who is also my friend. I refer to none other than Dr. John Darrington and his wife. They have long been my friends but this is the first time I have had the great pleasure of entertaining them in my home. On the day following their coming into my home our medical society held its third quarterly meeting for this year at Greenwood Springs. Dr.Darrington was guest speaker on our program. No comments are necessary for no program was ever a failure when John Darrington graced it. There were other places filled by other splendid men. So altogether it was a most interesting day. I wish all my friends throughout the state could be with us some time when we gather at Greenwood Springs, Aberdeen or Amory. Nothing could make me quite so happy as to have them do so.

None of my doctors have been sick recently—nor have any of them suddenly grown rich. The weather has been so fine that practically all of a very short cotton crop has been gathered and much of it marketed. Some are gathering corn. I do not know what we shall turn our attention to now. None of the four billion dollars has come our way as yet. Nor do I expect that many of them will come this way. I guess we shall all need to go to Ethiopia if we crave action and excitement. I am today in receipt of a letter from our governor soliciting criticism and suggestions for the session of the legislature that will close out the present administration. I hope it may go out in a blaze of glory and that much good legislation may be enacted. But I fear that we (he or I) have hardly time to do all that is needed to be done (and undone). But let us courageously turn our faces forward and upward and may it be that the worst is NOT yet to come.

Another good friend of mine is, at this hour, being consigned to the grave. I refer to Dr. R. C. Bunting of Memphis. I could not go.

For fear that this letter should appear too morbid, I will say no more at this time.

G. S. Bryan.

PIKE COUNTY

Dr. T. Paul Haney, Jr., will attend the meeting of The American Public Health Association in Milwaukee this month.

Dr. T. B. Abney attended the horse show in Louisville in September.

Dr. Gladys Ratcliff has returned from Columbus where she assisted in the examination of M. S. C. W. students.

Dr. R. H. Brumfield has been elected a Fellow of the American College of Surgeons and will attend the Clinical Congress in San Francisco.

Dr. L. J. Rutledge is pulling in the king mackerel off Sand Point Light.

PONTOTOC COUNTY

The Pontotoc County Medical Society met in regular session October 1, with a splendid attendance. We had a very interesting paper on "Hyperthyroidism, Its Diagnosis and Treatment," by Dr. Brown of Water Valley. The Pontotoc Society is to have an obstetrical course of ten lectures and clinics by Dr. Maxwell E. Lapham of Philadelphia. This course is to be held in Pontotoc, beginning November 5.

We regret to learn of the serious illness of Mrs. J. W. Gillispie, Sherman.

Dr. J. R. McDaniel, Steele, Mo., was a pleasant caller yesterday afternoon. Dr. McDaniel was formerly of Pontotoc, but has resided in Steele, Mo. for the past fifteen years.

Dr. A. P. Dunavant, Pontotoc, spent a week recently visiting friends and relatives in "The Lone Star State." He reports a very pleasant trip, but says Pontotoc is good enough for him.

R. P. Donaldson.

PONTOTOC COUNTY

Our Pontotoc County Medical Unit met in Pontotoc, Tuesday, October 1, with all but three members present. At the business session a plan was formulated for establishing a central collecting agency for the benefit of the doctors of this county. Under the plan a stenographer will be employed to address form letters to all clients submitted by the various doctors, with follow-up forms in cases where necessary. The scientific session consisted of a paper, "Hyperthyroidism", delivered by Dr. George Brown of Water Valley. His paper was very interesting and highly instructive. It was discussed by Drs. T. H. Rayburn, R. F. Shands, and W. H. Reid.

The death of Dr. E. G. Abernathy of Algoma, September 5 leaves this county with only twelve active physicians. However, the population of our county is only about 22,000 and I think that 12 physicians will be able to cover the territory.

Dr. J. H. Windham, Ecru, is happy over the arrival of a granddaughter a few days ago.

Health in this community remains fairly good. There is no serious illness among physicians' families.

Weather has been excellent for harvesting and most of the cotton has been ginned.

T. H. Rayburn.

RANKIN COUNTY

Dr. D. C. McCool, has resigned from the staff at Mississippi State Hospital and opened an office in the Physicians and Surgeons Building, 899 Madison Avenue, Memphis, Tennessee, specializing in nervous and mental diseases. He carries with him best wishes of the staff and employees of the Hospital.

The young men, whom the staff of the Mississippi State Hospital have enjoyed having with them for the summer months, have returned to their respective schools to enter their senior year in medicine, Mr. Irby of Oxford and Mr. Carlson of Quitman going to Vanderbilt; Mr. Friedman of Oxford to Tulane; Mr. Anderson of Sumrall to Chicago; and Mr. Busby of Hattiesburg to Louisiana State University.

Dr. and Mrs. E. S. Busby are spending their vacation with Mrs. Busby's family in Wisconsin.

W. H. Watson.

WARREN COUNTY

Old Man Depression in some mysterious way must have eventually gotten around that problematical corner and given full right of way to Prosperity's return, if we are to judge by the improvements recently and now being made at the private hospitals of our city, the Vicksburg Sanitarium, the Vicksburg Infirmary, and the Vicksburg Hospital. The Vicksburg Hospital has been built in its entirety within the past few years. At present, and for some time past, the Vicksburg Infirmary has been remodeling and rebuilding a three-story annex and markedly enlarging and refurnishing the nurses' home.

Vicksburg is preeminently a hospital center in Mississippi, and deservedly so, for on the staff of each of its hospitals will be found men of eminent ability who enjoy this recognition of efficiency from many outside authoritative sources.

Dr. H. A. Stafford was the "Good-Will Ambassador" from our neighbor state, Louisiana, during the past month, and while here attended a staff meeting at the Vicksburg Hospital.

Dr. George Street, imbued with the Spirit of Isaac Walton, bent a few surgical needles into fish hooks and pulled out for the gulf coast of Mississippi, and while he "flunk out" the enticing lure, his little daughter was pondering the mysteries of all life or existence, and she asked: "Daddy, how do the fishes live in the sea ", and Dr. George replied: "Why, baby, they live just like people do on the land, the *big* ones eat up the *little* ones." She says: "Daddy, let's go home. I see the *Street* Cleaner coming."

Dr. Charlie J. Edwards, one of our leading specialists on better seeing, more accurate hearing, more acute smelling, and more efficient swallowing, attended this month the annual meeting of the American Academy of Ophthalmology and Otolaryngology, convening in Cincinnati, Ohio. Dr. Charlie reports a most interesting and profitable session.

Dr. H. C. Ricks, Director of Bureau of County Health Work for the State Board, was a visitor in our city. Dr. Ricks was accompanied by Senor Jose Agureo of the Republic of Cuba.

Dr. Edley H. Jones *again* this month thrusts himself into *perfect focus* in the limelight of publicity by executing one of those unusual, unexpected, and unlooked for *"stunts"*, for which he is now famous. He made a trip to New Orleans this month and *took* his wife with him. Dr. and Mrs. Jones were accompanied by his brother, Neil Callahan, whom they were entertaining in Tulane University Medical Department.

Dr. B. B. Martin, Sr. and wife were out of the city of Vicksburg one week in September on a short vacation trip. Dr. Martin will have to pardon us for that suffix to his name of Senior, but inasmuch as his son, Dr. B. B. Martin, Jr., is making a most acceptable "debut" into things medical

and inasmuch as the father and the son are so *"youthful"* in physical features, news items on all occasions will have to make the designation of senior and junior, or the general public might be kept "guessing."

Dr. E. J. Huey of Memphis paid us a short visit this month. Dr. Huey is with the Mississippi River Commission, Memphis District.

Dr. Guy C. Jarratt, the great exterminator of baby pacifiers, found this month that he was in need of some pacification, so with Mrs. Jarratt and the kiddies, we are informed, he took a short vacation from his "squally" vocation.

Dr. Preston S. *Herring*, now that sounds "fishy", but, believe it or not, he is off on a short vacation, leaving Vicksburg on the first of October. He will be away about ten days, and while away he expects to grasp the hand in friendly greetings of a few of his former friends and confreres in Memphis, Tenn. and Louisville, Ky.

"Until death do us part" found it's sacred, solemn, and sorrowful culmination in the long and happy wedded life of Dr. and Mrs. H. S. Goodman of Cary, when on September 28, the immortal spirit of Mrs. Goodman heard and heeded it's Master's final call. Dr. Goodman is a member and was a former president of the Issaquena-Warren Counties Medical Society, and Mrs. Goodman has been a faithful member and was a past president of the Woman's Auxiliary. The many professional friends of Dr. Goodman extend sincerest sympathy to him in his great loss, for Mrs. Goodman was one of those who, when she became a doctor's wife said:

"Oh, husband, let me walk with thee
In lowly paths of service free;
Tell me your secrets, let me help you bear,
The strain of all your toil, the fret of all your care."

The "Old South's" city of enticing romance, New Orleans, was the destination of Dr. and Mrs. W. H. Parsons, who left Vicksburg October 4, for a week-end vacation.

Dr. H. T. Ims, County Editor.

WASHINGTON COUNTY

The many friends of Dr. A. J. Ware, Greenville, will be delighted to hear that his improvement has been such that he has been able to be moved to his home. An early complete recovery is wished for by all.

Dr. J. C. Pegues, Greenville, was called to Scottsboro, Ala., on account of the death of his father, Rev. D. K. Pegues, Sr. He was the oldest living member of the old Pegues family of South Carolina. He is survived by eight children and will be greatly missed in his community. Dr. Pegues has the sympathy of all his friends in his recent bereavement.

Dr. F. M. Acree, Greenville, visited his mother in Dover, Tenn. for a week before attending the American Legion Convention which was held in St. Louis, September 23 to 27.

Dr. and Mrs. Paul G. Gamble and children, Greenville, have returned from an extensive automobile trip in the east. On their way home they stopped at Nashville, Tenn., where they visited Mrs. Gamble's mother and brother.

Mrs. J. F. Lucas and children, Greenville, have returned home after a month's visit with her mother, Mrs. Gee of Carrollton.

Mrs. W. B. Wilson, Guntown, has returned home after a delightful visit with Dr. and Mrs. R. E. Wilson, Greenville.

Dr. D. C. Montgomery, Greenville, attended the meeting of the Academy in Cincinnati, Ohio recently.

Dr. D. C. Montgomery, has returned from Woodberry Forest, Va., where he went to accompany Cameron, Jr., who entered school there this fall.

Dr. J. A. Beals, Greenville, was guest speaker at the October meeting of the Issaquena-Sharkey-Warren Counties Medical Society.

Dr. H. A. Gamble, Greenville, attended the meeting of the National Hospital Association in St. Louis, October 1 to 4. Dr. Gamble is president of the Mississippi State Hospital Association.

Mrs. F. M. Acree, Greenville, is visiting relatives in Dover, Tenn.

Mrs. J. B. Franklin, Jackson, is visiting her father and mother, Dr. and Mrs. T. B. Lewis, Greenville. Mrs. Franklin will sing at the wedding of Miss Bertis Wells and Mr. Glen Bolton.

Mr. and Mrs. Carroll Fox, Seattle, Wash., were visitors for a few days with Dr. and Mrs. T. B. Lewis, Greenville. They have been making quite an extensive tour of the South.

Dr. and Mrs. J. B. Hirsch, Greenville, attended the funeral of Mr. E. Levi in Brownsville, Tenn. this past month.

Dr. and Mrs. G. W. Eubanks, Greenville, were recent visitors in Greenwood.

Dr. and Mrs. J. S. Sanders, Leland, attended the Hugh White celebration in Jackson. Dr. Sanders has been a frequent visitor to Jackson since then minglig with his many friends there.

Dr. J. G. Archer, Greenville, attended the American Legion Convention in St. Louis, September 23 to 27.

John G. Archer.

WINSTON COUNTY

Dr. W. W. Parks and his wife visited Memphis and other delta towns last week.

Dr. T. C. Suttle, Beth Eden, was in the city this week.

Dr. E. Lovorn was in the city looking after sales of cotton from his farm and other business. Doctor is a very successful farmer as well as physician.

Dr. E. L. Richardson recently made a trip to the delta hunting. He reports killing quite a few squirrels.

We noticed Dr. C. A. Kirk from Handle Community in the city with his usual smile and manner.

Dr. L. T. Parks, Fearn Springs, was in the city on business last week.

M. L. Montgomery.

COAST NEWS ITEMS

The Harrison-Stone-Hancock Medical Society met at the King's Daughters' Hospital, Gulfport, October 2, at 8 P. M., with a very good attendance. Dr. D. G. Rafferty, Pass Christian, was the speaker of the evening, presenting a paper "Wassermann Fast Syphilitics," the paper was very interesting and instructive bringing out much discussion.

The many friends of Dr. Charles LeBaron, Gulfport, are glad to learn that he has sufficiently recovered from his recent illness to resume his practice again.

Dr. E. A. Trudeau and Dr. B. B. O'Mara have rcently opened an attractive and well equipped suite of offices in the Gay Building, Biloxi, where they will be associated in the practice of medicine and surgery.

Dr. G. F. Carroll and Dr. I. L. Parsons of the Veterans Hospital, Biloxi, attended the meeting of the Mobile County Medical Society, Mobile, Ala., September 21. Dr. Carroll was the guest speaker of the evening, presenting an interesting paper on "Post-operative Progressive Gangrene of the Skin."

Plans are underway to hold a joint meeting of the Coast Medical Societies at the Veterans Hospital, Biloxi, at a date to be announced later, probably in November. This meeting will do much to bring the various physicians and surgeons into friendly conclave and much interest is being manifested. The societies represented will include Harrison, Stone, Hancock, Jackson and Mobile.

Among the many friends attending the funeral services of Dr. T. E. Ross, Sr., at Hattiesburg, were Dr. D. J. Williams, Gulfport, and Dr. I. L. Parsons and Dr. G. F. Carroll of Biloxi.

George F. Carroll.

THE WOMAN'S AUXILIARY MISSISSIPPI STATE MEDICAL ASSOCIATION

President—Mrs. Leon S. Lippincott, Vicksburg.

President-Elect—Mrs. Adna G. Wilde, Jackson.

Secretary—Mrs. H. C. Ricks, Jackson.

Treasurer—Mrs. J. W. D. Dicks, Natchez.

Press and Publicity Chairman—Mrs. Hugh H. Johnston, Vicksburg.

WOMAN'S AUXILIARY TO THE HOMOCHITTO VALLEY MEDICAL SOCIETY

The Woman's Auxiliary to the Homochitto Valley Medical Society held their regular quarterly meeting, October 10, at the Eola Hotel.

Ten members were present and after an enjoyable lunch, the usual order of business was transacted.

Election of officers being in order, the following were nominated and elected:

Mrs. Lucien S. Gaudet, president for 1936.

Mrs. Homer A. Whittington, president-elect for 1937.

Mrs. C. E. Mullins, secretary for 1936.

Mrs. W. K. Stowers is the outgoing president and Mrs. E. E. Benoist outgoing secretary. Other officers will be appointed by the President at the January meeting.

Mrs. Lucien S. Gaudet.

HONOR ROLL

The following have contributed to the Mississippi Section of the Journal this month:

COUNTY EDITORS: Lucien S. Gaudet, W. C. Walker, Douglas D. Baugh, N. C. Knight, L. L. Minor, S. R. Towns, Harvey F. Garrison, Jr.; W. H. Scudder, E. W. Blount, Joe E. Green, C. J. Lewis, J. R. Simms, Jr.; W. B. Dickins, G. S. Bryan, R. P. Donaldson, W. H. Watson, Dr. H. T. Ims, John G. Archer, M. L. Montgomery.—19.

SOCIETIES: Adams County, W. K. Stowers; Central, L. W. Long; Delta, F. M. Acree; Homochitto Valley, Lucien S. Gaudet; Issaquena-Sharkey-Warren; North Mississippi, A. H. Little; South Mississippi, F. T. Bower; Wilkinson County, Edwin M. Butler.—8.

WOMAN'S AUXILIARY: Mrs. Lucien S. Gaudet.—1.

HOSPITALS: Jackson Infirmary, Harvey F. Garrison, Jr.; Mississippi Baptist Hospital, Harvey F. Garrison, Jr.; Vicksburg Sanitarium.—3.

OTHERS: Harvey F. Garrison, T. E. Ross, Felix J. Underwood, T. H. Rayborn, George F. Carroll.—5.

GRAND TOTAL—36.

Your editors thank you.

BOOK REVIEWS

Clinical Laboratory Methods and Diagnosis: By R. B. H. Grundwold, M. D. St. Louis, C. V. Mosby Co. 1935. pp. 1028. Price $8.50.

An exhaustive manual of laboratory methods, profusely illustrated, and thoroughly modern. Methods are described in some detail and in a clear and accurate manner. The scope of the volume is so great that it will be found too exhaustive for daily use by practicing physicians, medical students, and technicians; it will probably be fully and properly appreciated only by accomplished clinical pathologists.

MANUEL GARDBERG, M. D.

Recherches Anthropometriques sur la Croissance: By Paul Godin. Second edition. Paris, Amedee Legrand. 1935. pp. xi, 268.

Godin has been engaged for many years in anthropometric investigations of growth. His first publication specifically in this field was in 1891; the present volume is in a sense a summation of the author's work since that date. The first and larger part of the volume is a new edition of a broader study which appeared in 1902, while the second section is concerned exclusively with the influence of puberty on growth.

The study of adolescent growth is based upon repeated observations of the same subjects, made twice yearly from 13½ to 17½ years. At each of the nine periods 129 body measurements are recorded, so that the successive observations make it possible to follow the increase in absolute dimensions and changes in proportions. In addition to the metric records Godin makes a large series of direct observations, including such items as muscular relief, deposition of fat, development of pubic hair, skin pigmentation, color and abundance of head hair, etc. The results are presented in tables and graphs.

Godin's central idea in the study of the boy or girl is that growth and differentiation are best understood if referred to the history of the reproductive cells. While this point of view will be regarded by many as an unnecessary statement of a truism, some readers will find novelty in such consideration of the individual life history as a mere accessory to the continuity of germ plasm. The first phase of the organism is that of germ plasm alone—the fertilized egg cell—and the evolution of the body represents simply the evolution of a carrier which makes possible a perpetuation of that germ plasm. Thus through the embryofetal period and childhood the reproductive cells are proliferated but remain quiescent. Growth and maturation of the adolescent reflect the concurrent ripening of the reproductive cells, which thereafter have potentially continuous existence in the descendants of the individual.

Just as other pubertal signs are earlier in the female, the attainment of adult bodily proportions (as in relative volumes of trunk and head) advances earlier in the female. By means of measurements and collateral observations Godin sets down his conclusions regarding the onset of puberty and its stages. In his material puberty is attained at 13½ and 15½ years in females and males, respectively, and in both sexes full nubility is acquired during the five-year period following.

There is a bibliography, covering six pages, which is curiously lacking in citations of important American and German work in this field.

HAROLD CUMMINS, Ph. D.

International Medical Annual, 1935. Baltimore, William Wood & Co., 1935. Illus. pp. 522. Price $6.00

A splendid selective presentations of advances in medical science by a representative group of British physicians and surgeons. The prime purpose of the annual has to do with the treatment of disease, especially with those methods that can be immediately employed by the general practitioner. It is well edited and subject matter is easily found.

I. L. ROBBINS, M. D.

PUBLICATIONS RECEIVED

Lea and Febiger, Philadelphia: Treatment of Diabetes Mellitus, by E. P. Joslin, M. D., M. A. Diseases of the Skin, by F. C. Knowles, M. D. Pathology of Internal Diseases, Second Edition, by Wm. Boyd, M. D., M. R. C. P., F. R. C. P., F. R. S.

The MacMillan Company, New York: Pediatric Treatment, by P. S. Porter, A. B., M. D., F. A. A. P.

Chas. C. Thomas, Springfield, Illinois: Body Water, by J. P. Peters, M. D.

Edwards Brothers, Inc., Ann Arbor, Michigan: Diagnostic Criminology, by L. S. Selling, M. D., Ph. D., D. N. B.

P. Blakiston's Son & Co., Inc., Philadelphia: Clinical Psychiatry, by E. A. Strecker, A. M., Sc. D., M. D., and F. G. Ebaugh, A. B., M. D.

E. P. Dutton & Co., Inc., New York: Fifty Years a Surgeon, by Robert T. Morris, M. D.

J. B. Lippincott Company, Philadelphia: Disease of the Nose and Throat by C. J. Imperatori, M. D., F. A. C. S. and H. J. Burman, M. D.

W. B. Saunders Company, Philadelphia and London: A Textbook of Bacteriology, by T. B. Rice, A. M., M. D. The Stomach and Duodenum, by G. B. Eusterman, M. D., F. A. C. P. and D. C. Balfour, M. B., M. D., LL. D., F. A. C. S., F. R. A. C. S. and Members of the Staff of The Mayo Clinic.

Oxford University Press, New York: Oxford Medicine, Diseases of Heart, Blood Vessels and Blood, Vol. II, Part III, by Christian.